

ACCORDION SHUTTER

WITH ALUMINUM OR POLYCARBONATE BLADES

ALLOWABLE SPAN SCHEDULE

SLAT SPAN	MAXIMUM ALLOWABLE DESIGN PRESSURES							
	STANDARD BLADES ONLY		LIGHTWEIGHT BLADES OR LIGHTWEIGHT/WINDOW BLADE COMBINATION†		WINDOW BLADES OR STANDARD/ WINDOW BLADE COMBINATION†		SHUTTER WITH STANDARD BLADES AND ONE SINGLE WINDOW BLADE*	
72"	+ 152.5 PSF	- 152.5 PSF	+ 75.0 PSF	- 75.0 PSF	+ 93.6 PSF	- 93.6 PSF	+ 93.6 PSF	- 93.6 PSF
90"	+ 117.8 PSF	- 117.8 PSF	+ 75.0 PSF	- 75.0 PSF	+ 93.6 PSF	- 93.6 PSF	+ 93.6 PSF	- 93.6 PSF
108"	+ 100.5 PSF	- 100.5 PSF	+ 75.0 PSF	- 75.0 PSF	+ 93.6 PSF	- 93.6 PSF	+ 93.6 PSF	- 93.6 PSF
126"	+ 61.2 PSF	- 76.2 PSF					+ 42.4 PSF	- 62.4 PSF
144"	+ 42.4 PSF	- 62.4 PSF					+ 42.4 PSF	- 62.4 PSF
162"	+ 25.5 PSF	- 41.6 PSF					+ 25.5 PSF	- 41.6 PSF

SPAN SCHEDULE NOTES:

- PRESSURES SHOWN IN "ALLOWABLE SPAN SCHEDULE" ARE MAXIMUM ALLOWABLE DESIGN PRESSURES AT EACH RESPECTIVE SHUTTER SPAN.
- † APPLICABLE FOR INSTALLATIONS UTILIZING ALTERNATING BLADE PAIRS/ WINDOW BLADE PAIRS (ie ONE PAIR OF ALUMINUM BLADES WITH A PAIR OF WINDOW BLADES TO THE LEFT AND A PAIR OF WIND BLADES TO THE RIGHT).
- * ONLY APPLICABLE FOR INSTALLATIONS WITH ONE SINGLE WINDOW BLADE SLAT, AND THE REMAINDER STANDARD BLADES.

MINIMUM GLASS SEPARATION

SPAN LESS THAN:	STANDARD BLADES ONLY		LIGHTWEIGHT BLADES OR LIGHTWEIGHT/WINDOW BLADE COMBINATION†		WINDOW BLADES OR STANDARD/ WINDOW BLADE COMBINATION†		SHUTTER WITH STANDARD BLADES AND ONE SINGLE WINDOW BLADE*	
	INSTALLATIONS 30' ABOVE GRADE OR LESS	INSTALLATIONS MORE THAN 30' ABOVE GRADE	INSTALLATIONS 30' ABOVE GRADE OR LESS	INSTALLATIONS MORE THAN 30' ABOVE GRADE	INSTALLATIONS 30' ABOVE GRADE OR LESS	INSTALLATIONS MORE THAN 30' ABOVE GRADE	INSTALLATIONS 30' ABOVE GRADE OR LESS	INSTALLATIONS MORE THAN 30' ABOVE GRADE
72"	1.88"	1.88"	2.60"	2.50"	2.63"	2.63"	4.50"	3.00"
90"	2.13"	2.13"	2.60"	2.50"	2.63"	2.63"	4.50"	3.00"
108"	2.88"	2.78"	2.60"	2.50"	2.63"	2.63"	4.50"	3.00"
126"	3.63"	3.00"					4.50"	3.00"
144"	4.50"	3.00"					4.50"	3.00"
162"	4.50"	3.00"					4.50"	3.00"

GLASS SEPARATION SCHEDULE NOTES:

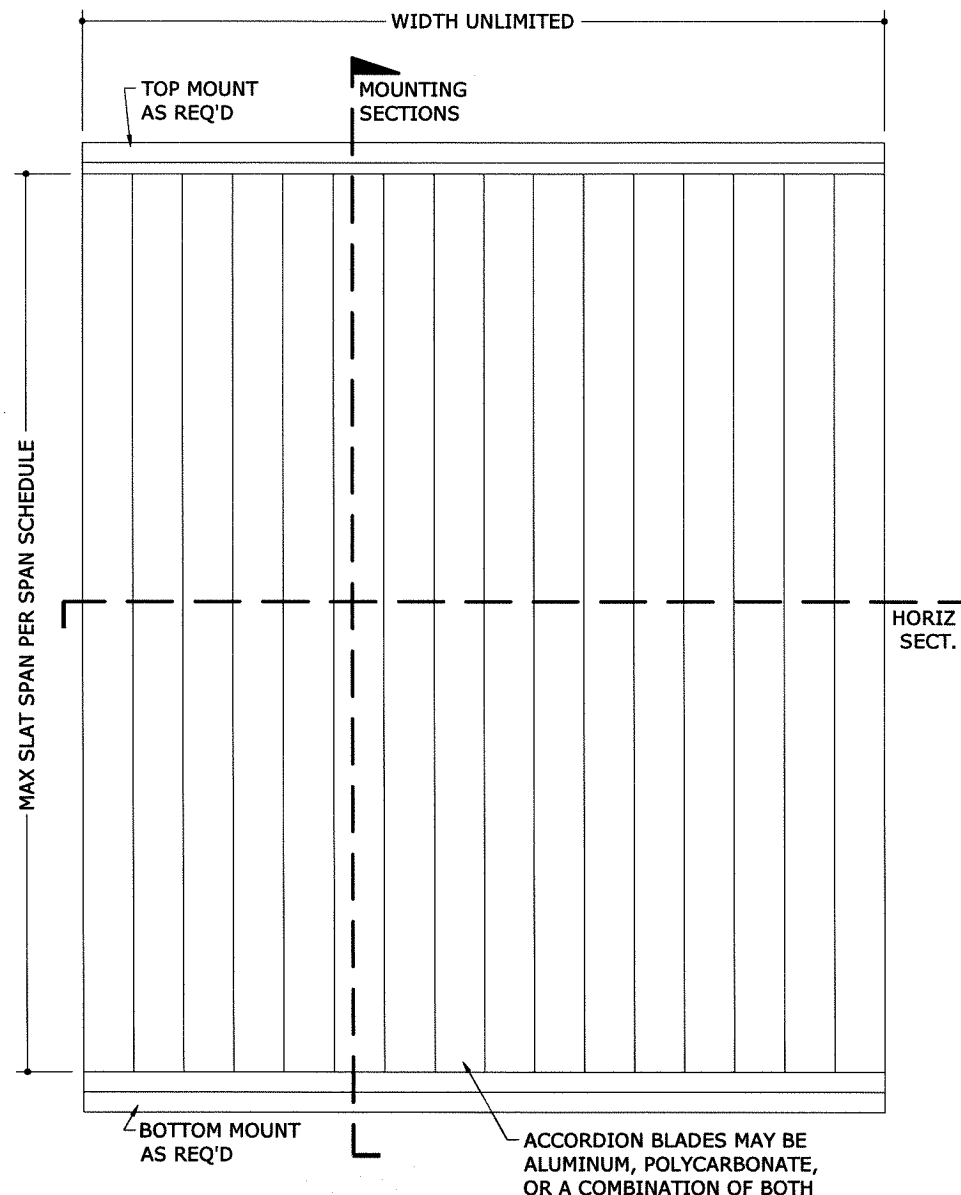
- SEPARATION FROM GLAZING SHALL BE MEASURED FROM THE PROTECTED FENESTRATION PRODUCT TO THE NEAREST POINT ON THE INTERIOR SIDE OF THE SHUTTER, WHICH MAY BE THE BLADE, CENTERMATE, OR LOCKING DEVICE.
- † APPLICABLE FOR INSTALLATIONS UTILIZING ALTERNATING BLADE PAIRS/ WINDOW BLADE PAIRS (ie ONE PAIR OF ALUMINUM BLADES WITH A PAIR OF WINDOW BLADES TO THE LEFT AND A PAIR OF WIND BLADES TO THE RIGHT).
- * ONLY APPLICABLE FOR INSTALLATIONS WITH ONE SINGLE WINDOW BLADE SLAT, AND THE REMAINDER STANDARD BLADES.
- GLASS SEPARATION IS REQUIRED ONLY WITHIN THE HVHZ, ASTM WIND ZONE 4, OR ESSENTIAL FACILITIES.

GENERAL NOTES

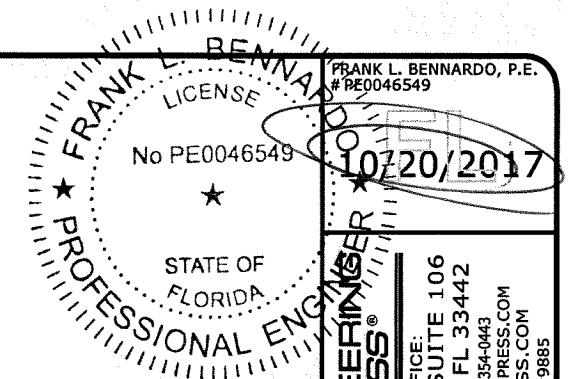
- THE SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE SIXTH EDITION (2017), FOR USE WITHIN AND OUTSIDE THE HIGH VELOCITY HURRICANE ZONE, PER TAS 201 / 202 / 203 AND ASTM E 330 / E 1886 / E 1996.
- NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM. WIND LOAD DURATION FACTOR $C_d=1.6$ HAS BEEN USED FOR WOOD ANCHOR DESIGN.
- POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED PER SEPARATE ENGINEERING IN ACCORDANCE WITH THE GOVERNING CODE. PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH ASCE 7-10 AND CHAPTER 1609 OF THE FLORIDA BUILDING CODE SIXTH EDITION (2017) SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.
- DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.
- ALL POLYCARBONATE PANELS SHALL BE EXTRUDED WITH THICKNESS $t=0.090"$ AND SHALL BE FABRICATED FROM 100% SABIC INNOVATIVE PLASTICS THERMOPLASTIC POLYMER LEXAN SHEET #XL10 2UV (UV STABILIZED), AS APPROVED UNDER MIAMI-DADE COUNTY NOTICE OF ACCEPTANCE #15-0915.08.
- THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
- PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND SUPERIMPOSED LOADS. WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.
- ALL EXTRUSIONS SHALL BE 6063-T6 ALUMINUM ALLOY, UNLESS NOTED OTHERWISE.
- EACH SHUTTER ASSEMBLY SHALL BE PERMANENTLY LABELED WITH THE FOLLOWING MINIMUM INFORMATION:
IMPACT TECHNOLOGY, INC.
HIALEAH, FL
TAS 201, 202, 203
MISSILE LEVEL D - ASTM E330, E1886, E1996
FLORIDA PRODUCT APPROVAL NUMBER

THIS IS THE MINIMUM LABEL INFORMATION, ACTUAL PRODUCT LABELS SHALL COMPLY WITH ALL REQUIREMENTS OF THE FLORIDA BUILDING CODE, INCLUDING THE PROVISIONS FOR THE HIGH VELOCITY HURRICANE ZONE (HVHZ).

- TOP & BOTTOM DETAILS SHOWN MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE.
- ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, OR STAINLESS STEEL WITH A MINIMUM TENSILE YIELD STRENGTH OF 60 KSI.
- ALL 3/16"Ø OR 1/4"Ø POP RIVETS SHALL BE 5056-H32 ALUMINUM ALLOY OR STRONGER.
- ALL STEEL IN CONTACT WITH ALUMINUM SHALL BE PAINTED OR PLATED.
- WALL HEADERS #10, 13, 38 AND 39 AS SHOWN HEREIN MAY BE MOUNTED ON THE INTERIOR OR EXTERIOR OF AN OPENING.



1 TYPICAL ELEVATION
1 N.T.S. EXTERIOR ELEV



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7860 WEST 25 AVENUE
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PHONE: 407-402-4821
ACCORDION SHUTTER
WITH ALUMINUM OR POLYCARBONATE BLADES
FLORIDA STATEWIDE PRODUCT APPROVAL FL12549.1

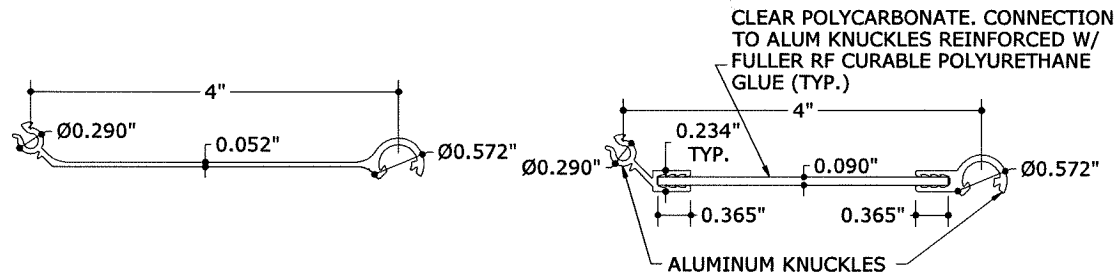
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05/03/09	KL	FLB
02/14/12	KL	FLB
02/06/15	CSL	TSB
10/04/17	JAC	FLB

REMARKS:
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FBC 5TH (2014)
UPDATE FOR FBC (2017)

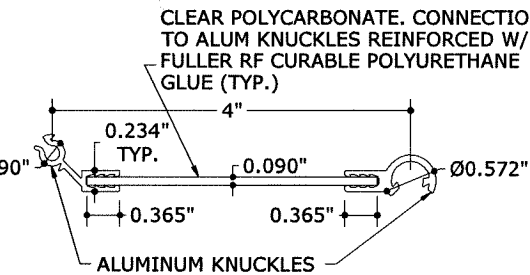
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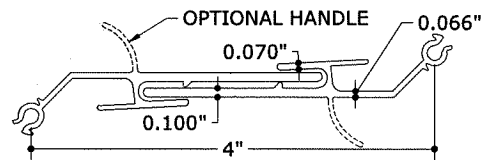
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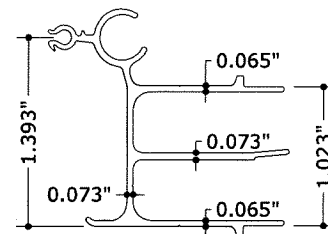
1 STANDARD BLADE
N.T.S. 6063-T6



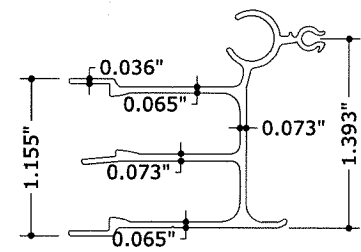
2 WINDOW BLADE
N.T.S. 6063-T6/POLYCARBONATE



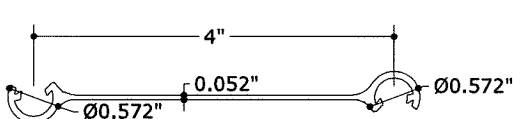
3 HERMAPHRODITIC CENTERMATE
N.T.S. 6063-T6



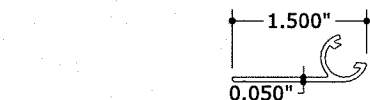
4 MALE CENTERMATE
N.T.S. 6063-T6



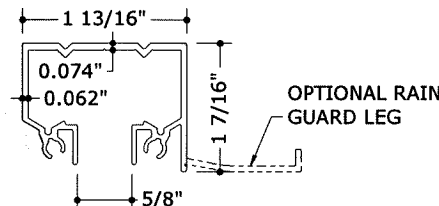
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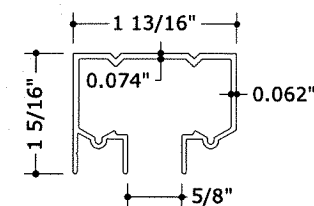
6 BLADE ADAPTER
N.T.S. 6063-T6



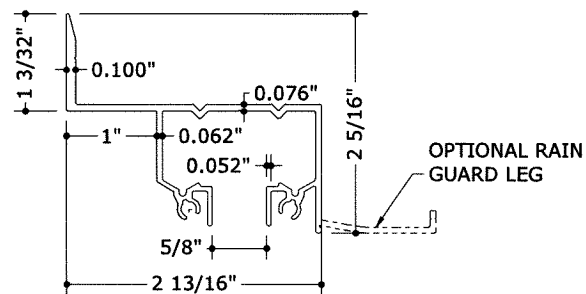
8 FLAT STARTER BLADE
N.T.S. 6063-T6



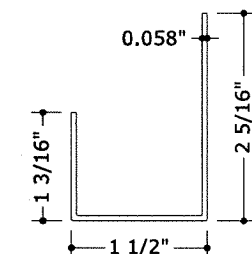
9 CEILING HEADER
N.T.S. 6063-T6



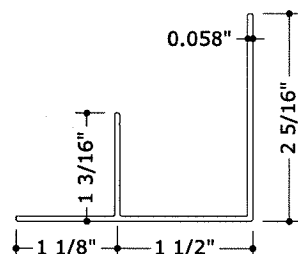
37 ALT. CEILING HEADER
N.T.S. 6063-T6



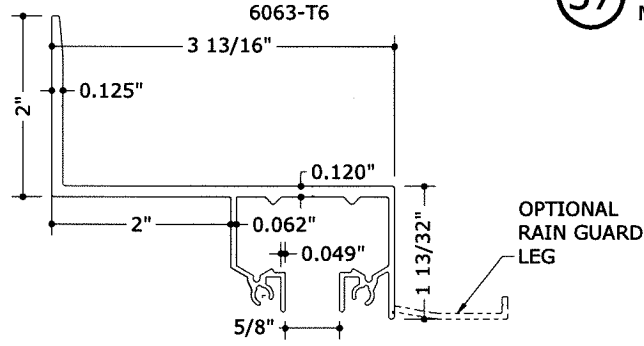
10 WALL HEADER
N.T.S. 6063-T6



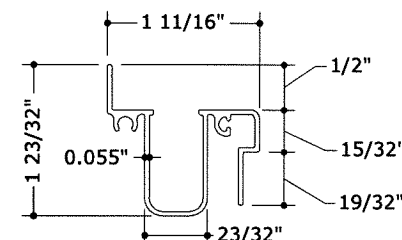
11 ADJUSTABLE SILL TRACK BOTTOM
N.T.S. 6063-T6



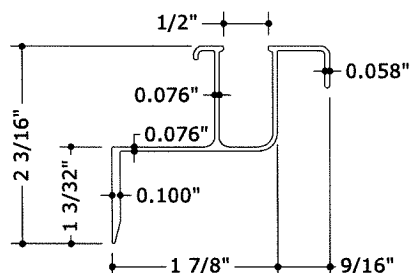
12 ALT. ADJUSTABLE SILL TRACK BOTTOM
N.T.S. 6063-T6



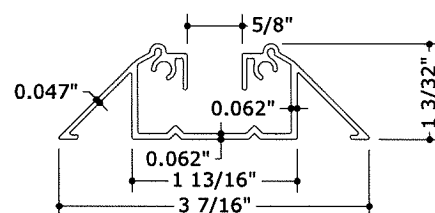
13 BUILD-OUT WALL HEADER
N.T.S. 6063-T6



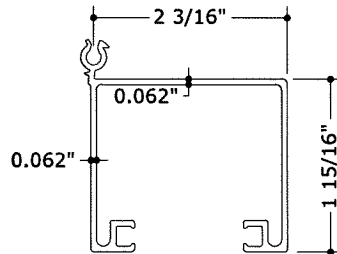
14 ADJUSTABLE SILL TRACK TOP
N.T.S. 6063-T6



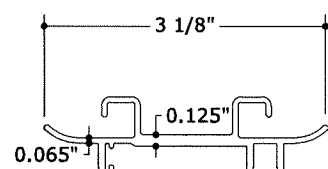
15 WALL SILL TRACK
N.T.S. 6063-T6



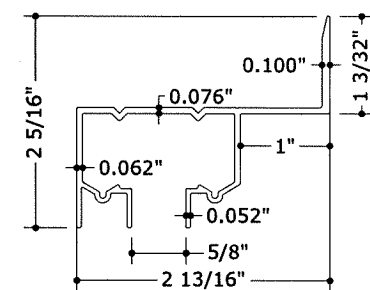
16 WALKOVER TRACK
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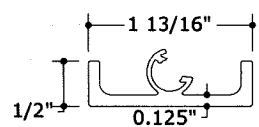
29 HIGH IMPACT CENTERMATE
N.T.S. 6063-T6



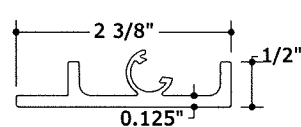
30 HIGH IMPACT CENTERMATE INSERT
N.T.S. 6063-T6



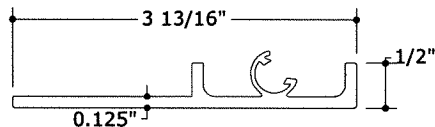
38 ALT. WALL HEADER
N.T.S. 6063-T6



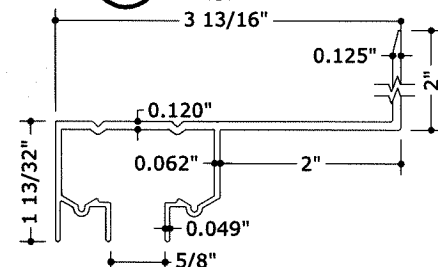
31 CEILING SIDE MOUNT
N.T.S. 6063-T6



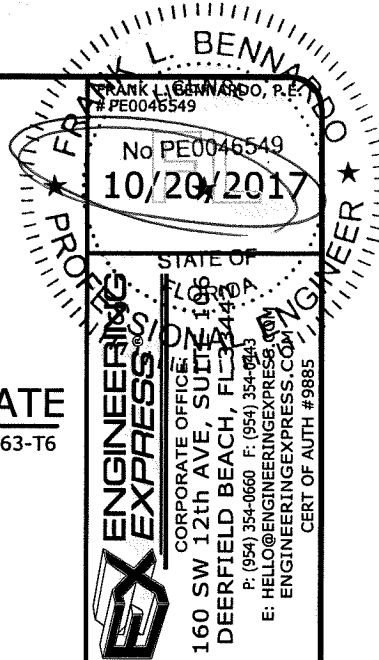
32 HEADER SIDE MOUNT
N.T.S. 6063-T6



33 BUILD-OUT HEADER SIDE MOUNT
N.T.S. 6063-T6



39 ALT. BUILD-OUT WALL HEADER
N.T.S. 6063-T6



IMPACT TECHNOLOGY, INC.



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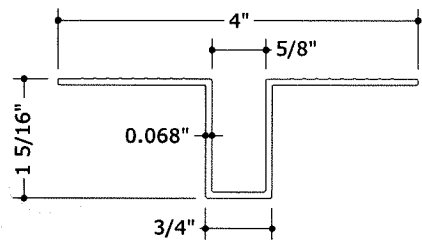
REMARKS	DATE	DRWN	CHKD
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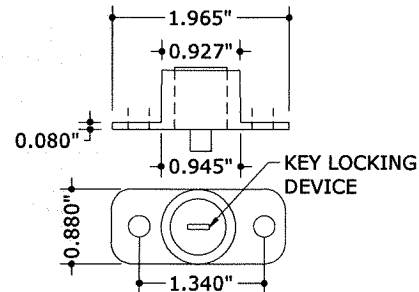
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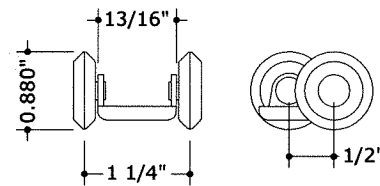
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17 RECESSED TRACK
N.T.S. 6063-T5

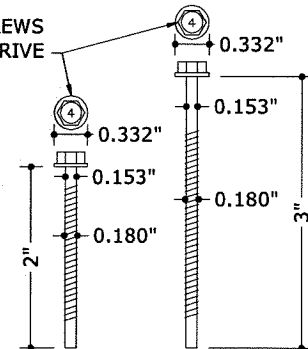


18 PUSH-BUTTON LOCK
N.T.S. 6063-T5

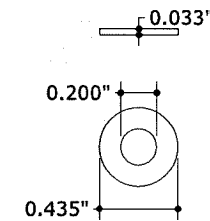


19 WHEEL CARRIAGE
N.T.S. NYLON/STAINLESS STEEL

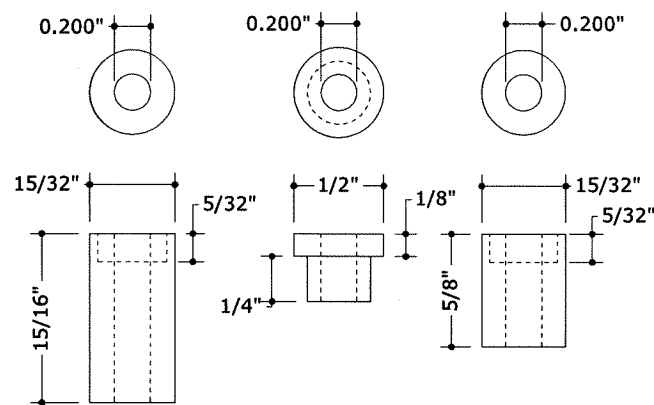
#10 410 S.S. SCREWS
WITH 1/4" HEX DRIVE



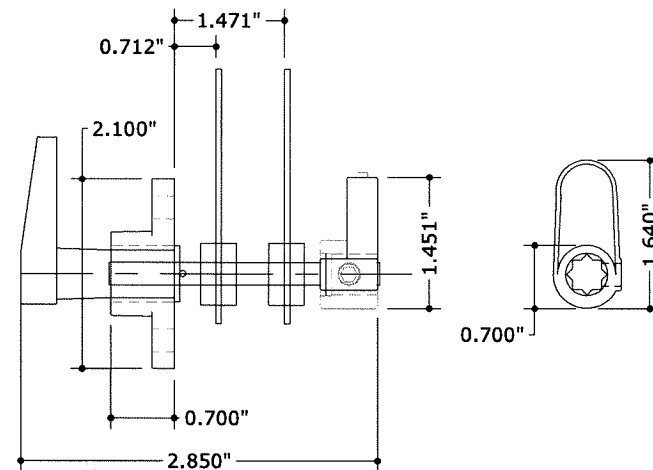
20 KNUCKLE SCREWS
N.T.S. STAINLESS STEEL



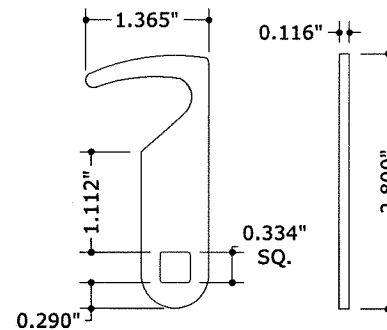
21 WASHER
N.T.S. STAINLESS STEEL



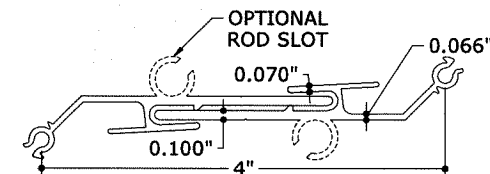
22 NYLON BUSHINGS
N.T.S. NYLON



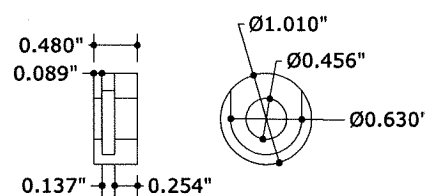
23 LOCK ASSEMBLY
N.T.S. ZINC ALLOY/STAINLESS STEEL



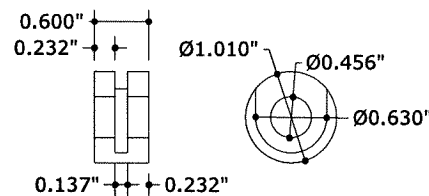
24 LOCKING ARM
N.T.S. 410 STAINLESS STEEL



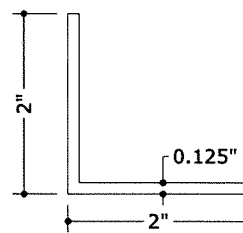
40 ALT. HERMAPHRODITIC
CENTERMATE
N.T.S. 6063-T6



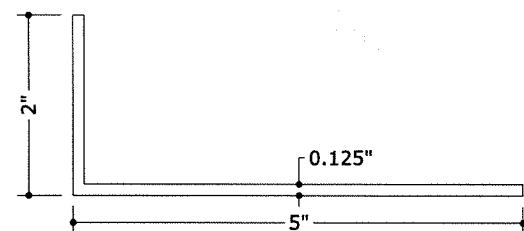
25 LEFT LOCKING
ARM BUSHING
N.T.S. NYLON



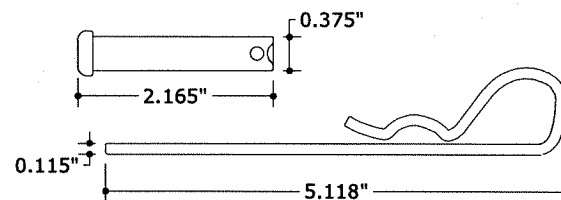
26 RIGHT LOCKING
ARM BUSHING
N.T.S. NYLON



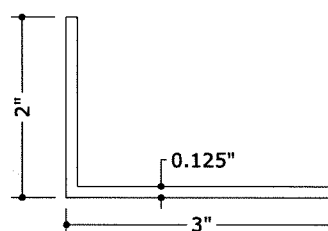
35 2"x2"x0.125" ANGLE
N.T.S. 6063-T6



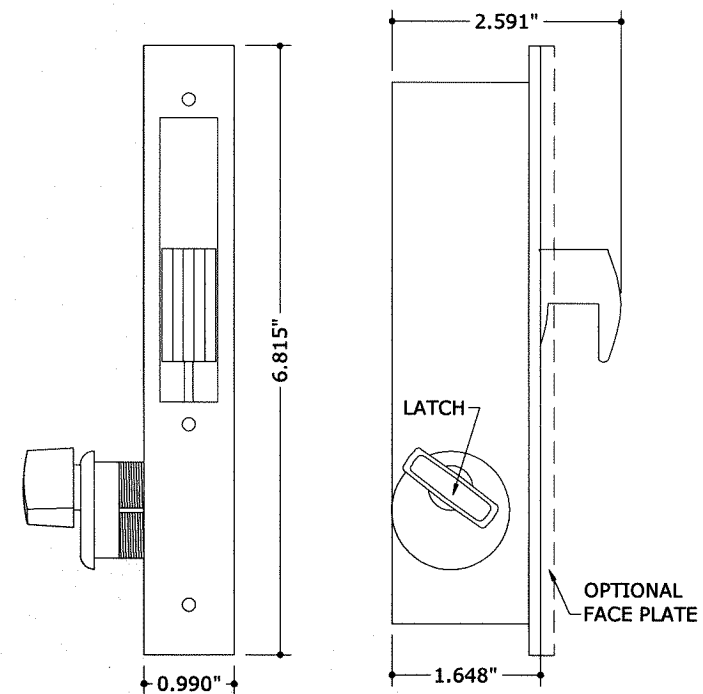
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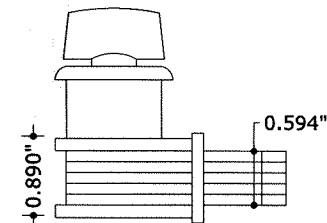
28 CLEVIS AND PIN
N.T.S. CADMIUM PLATED STEEL



36 2"x3"x0.125" ANGLE
N.T.S. 6063-T6



34 HOOK BOLT DEAD LOCK
N.T.S. ALUMINUM



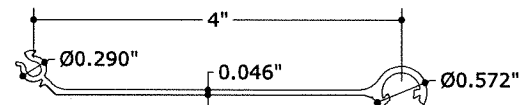
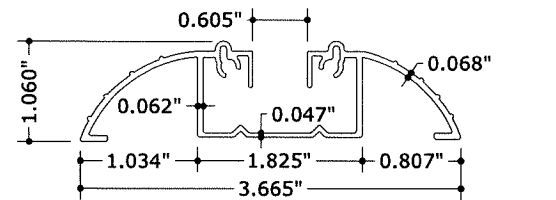
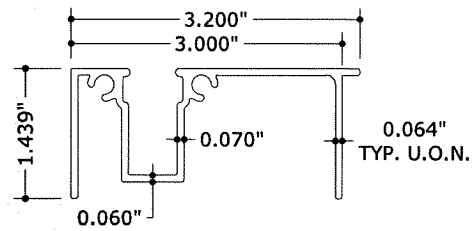
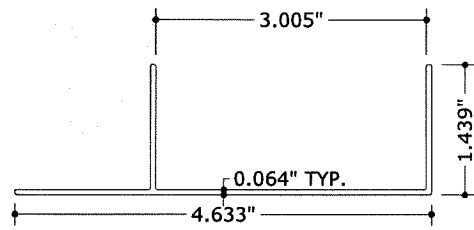
FRANK L. BENNARD
P.E. # 00046549
10/20/2017
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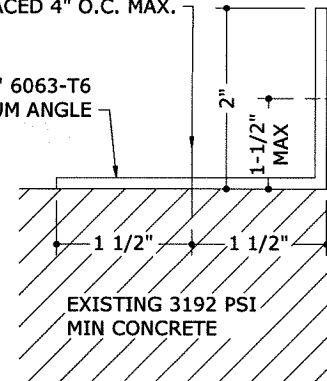
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3

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1/4" ITW TAPCON W/ 1-3/4" MIN. EMBEDMENT AND 1" MIN. EDGE DISTANCE TO 3192 PSI MIN. CONCRETE, SPACED 4" O.C. MAX.

2"x3"x0.125" 6063-T6 ALUMINUM ANGLE



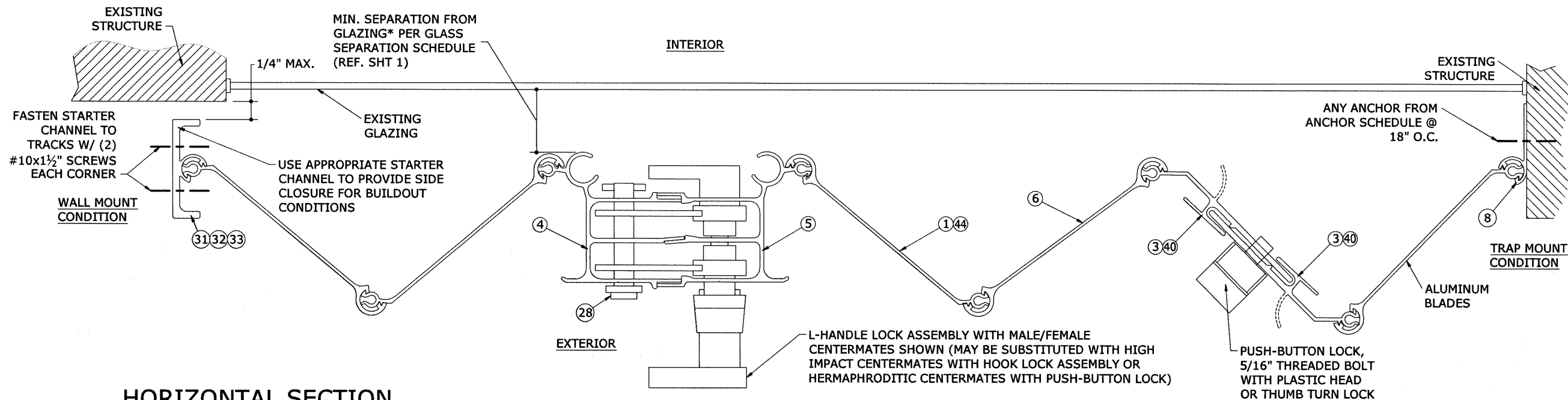
#14 410 316 SS SHEET METAL SCREWS OR 1/4"x3/4" 316 SS MACHINE BOLTS AND NUTS (WITH 5/8" MIN WASHERS) SPACED AT 8" O.C. MAX.

ALLOWABLE DESIGN PRESSURES FOR DETAIL 1/4:

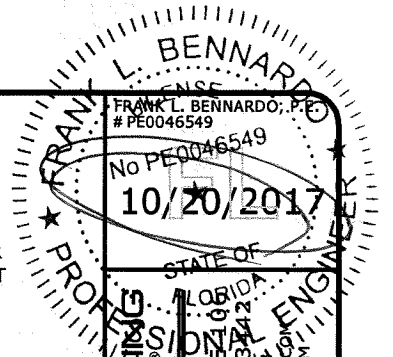
SPAN:	MAX DESIGN PRESSURE:
72"	+80.3 psf / -80.3 psf
90"	+64.2 psf / -64.2 psf
108"	+53.5 psf / -53.5 psf
126"	+45.9 psf / -45.9 psf
144"	+40.1 psf / -40.1 psf

NOTE: MAXIMUM ALLOWABLE SPANS AND DESIGN PRESSURES FOR THIS MOUNTING CONDITION PER TABLE BELOW.

1/4 BUILD-UP WALL MOUNT
N.T.S. VERT SECTION



***NOTE:** SEPARATION FROM GLAZING SHALL BE MEASURED FROM THE PROTECTED FENESTRATION PRODUCT TO THE NEAREST POINT ON THE INTERIOR SIDE OF THE SHUTTER, WHICH MAY BE THE BLADE, CENTERMATE, OR LOCKING DEVICE.



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E: HELLO@ENGINEERINGEXPRESS.COM
ENGINEERINGEXPRESS.COM
CERT OF AUTH #9885

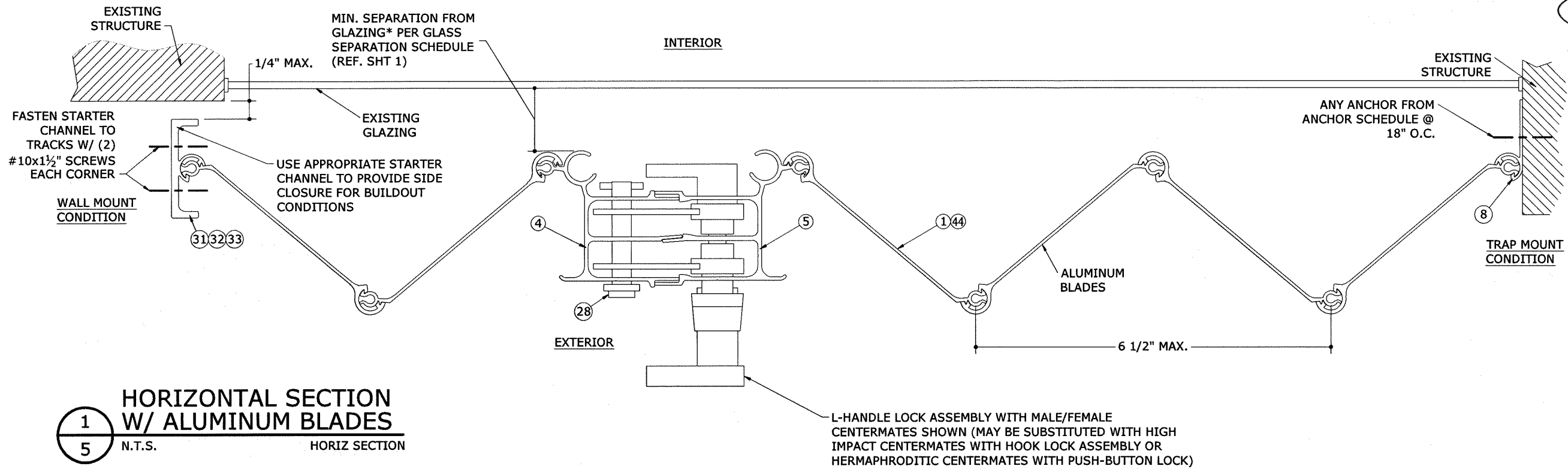
IMPACT TECHNOLOGY, INC.
7860 WEST 25 AVENUE
HIALEAH, FL 33016
PHONE: 407-402-4821
ACCORDION SHUTTER
WITH ALUMINUM OR POLYCARBONATE BLADES
FLORIDA STATEWIDE PRODUCT APPROVAL FL12549.1

REMARKS	DRWN	CHKD	DATE
INITIAL SUBMITTAL	KL	FLB	05/03/09
2010 FBC (09-IT-01-04)	KL	FLB	02/14/12
FBC 5TH (2014)	CSL	TSB	02/06/15
UPDATE FOR FBC (2017)	JAC	FLB	10/04/17

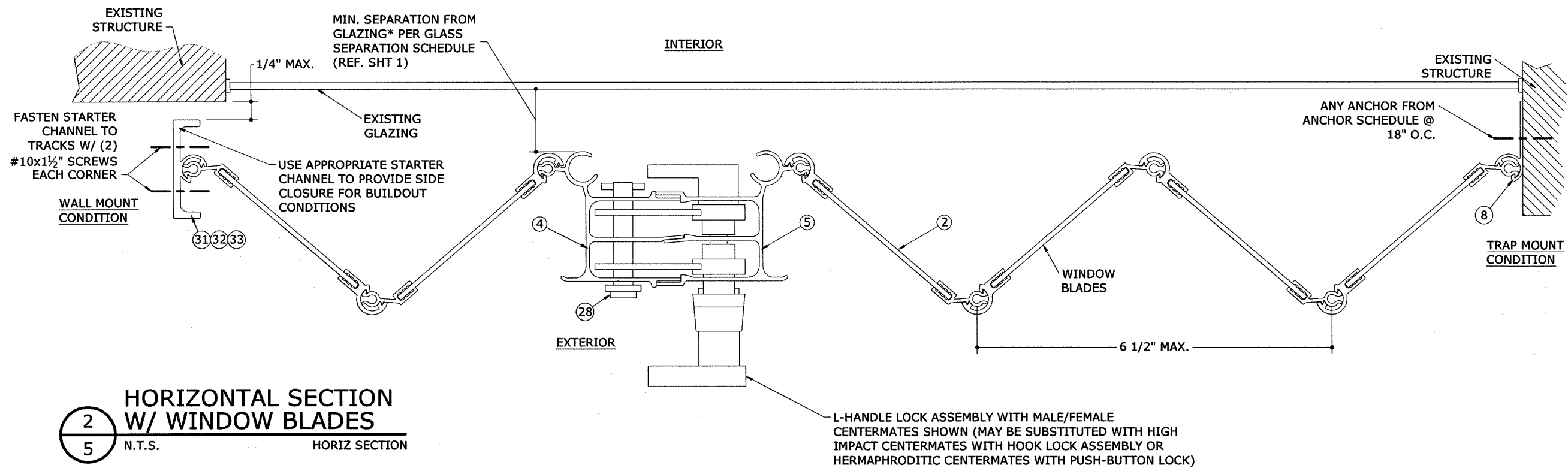
14-1964

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PAGE DESCRIPTION:

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***NOTE:** SEPARATION FROM GLAZING SHALL BE MEASURED FROM THE PROTECTED FENESTRATION PRODUCT TO THE NEAREST POINT ON THE INTERIOR SIDE OF THE SHUTTER, WHICH MAY BE THE BLADE, CENTERMATE, OR LOCKING DEVICE.



FRANK L. BENNETT, P.E.
#PE0046549
10/20/2017

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PHONE: 407-402-4821

ACCORDION SHUTTER
WITH ALUMINUM OR POLYCARBONATE BLADES
FLORIDA STATEWIDE PRODUCT APPROVAL FL12549.1

REMARKS	DRWN	CHKD	DATE
INITIAL SUBMITTAL	KL	FLB	05/03/09
2010 FBC (09-IT-001-04)	KL	FLB	02/14/12
FBC 5TH (2014)	CSL	TSS	02/06/15
UPDATE FOR FBC (2017)	JAC	FLB	10/04/17

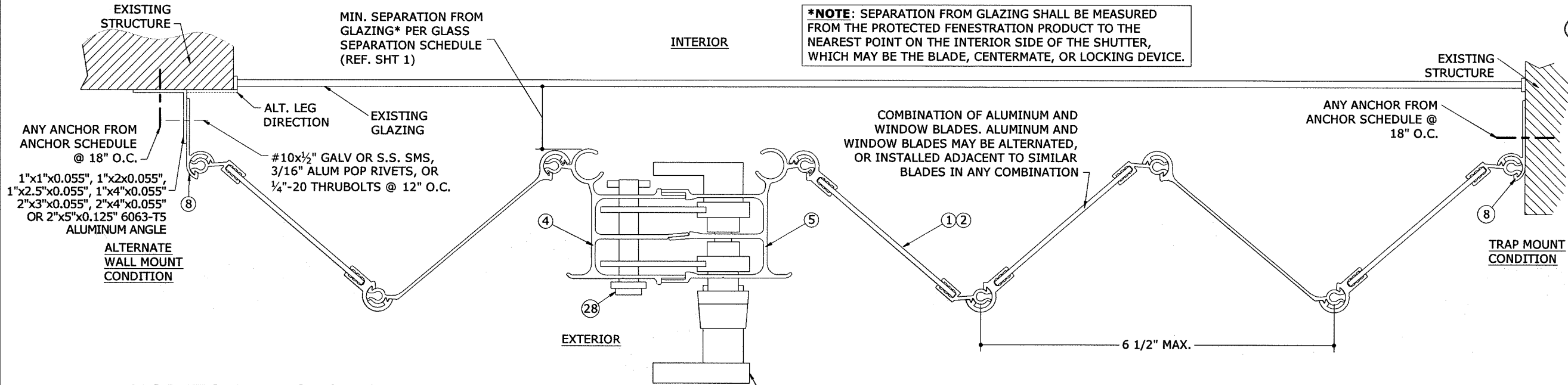
14-1964

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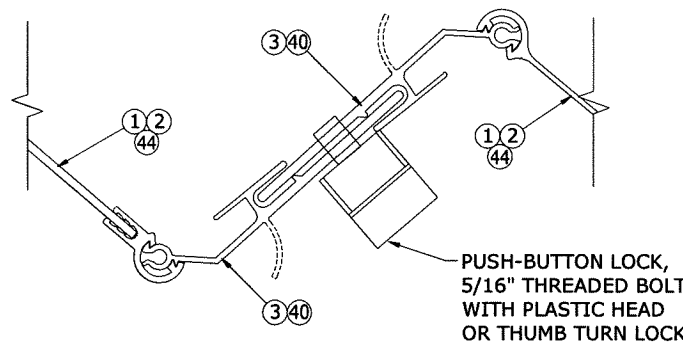
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12

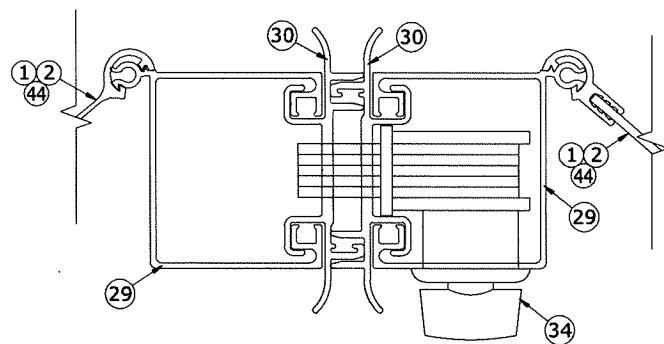


1
6 HORIZONTAL SECTION W/ COMBINATION BLADES
N.T.S. HORIZ SECTION

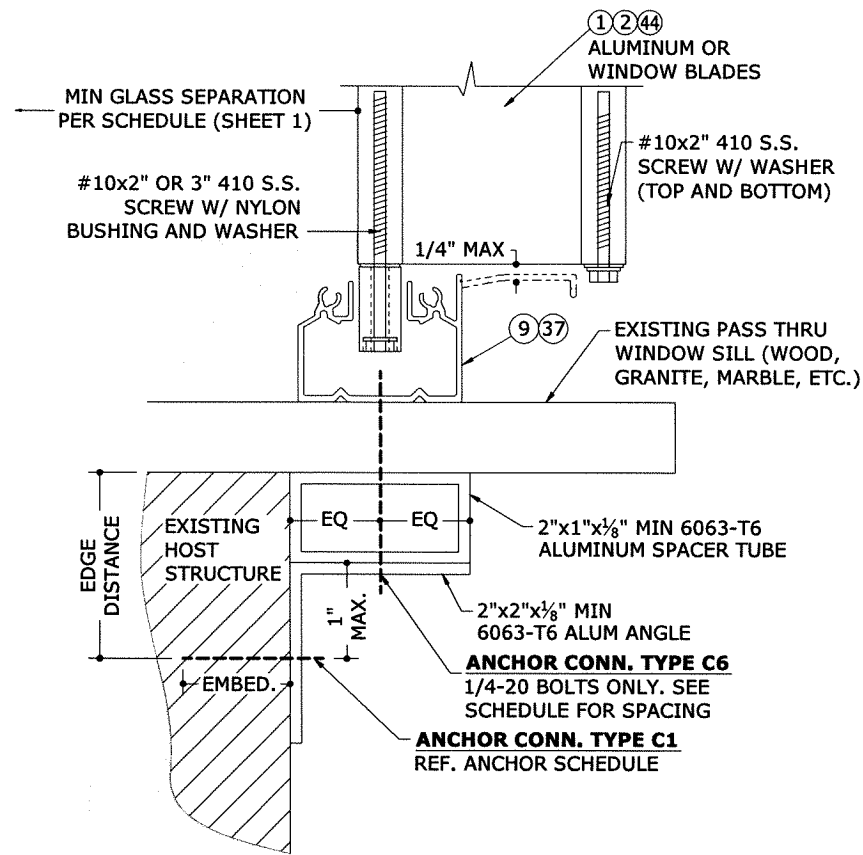
NOTE: LOCKS MAY BE MOUNTED ON INTERIOR OR EXTERIOR SIDE OF SHUTTER.



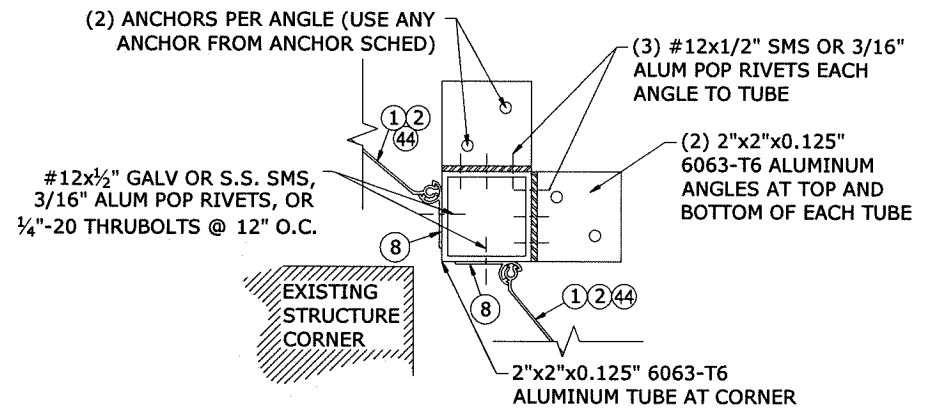
2
6 ALT. HERMAPHRODITIC CENTERMATE
N.T.S. HORIZ SECTION



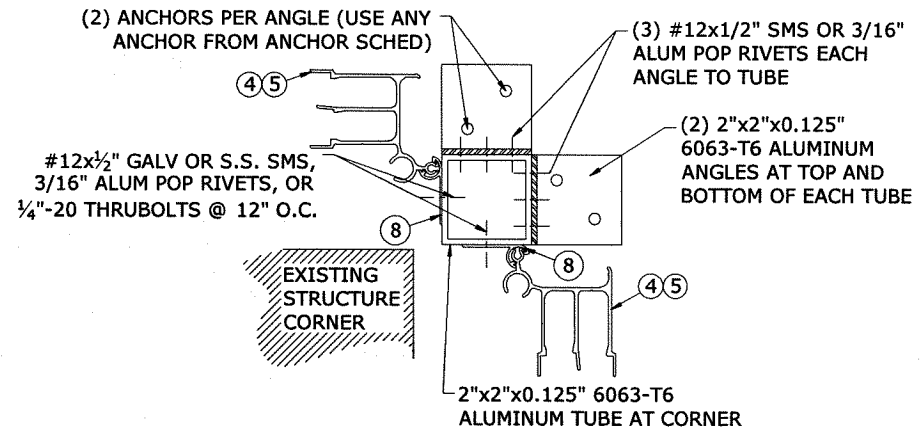
3
6 ALT. HIGH IMPACT CENTERMATE
N.T.S. HORIZ SECTION



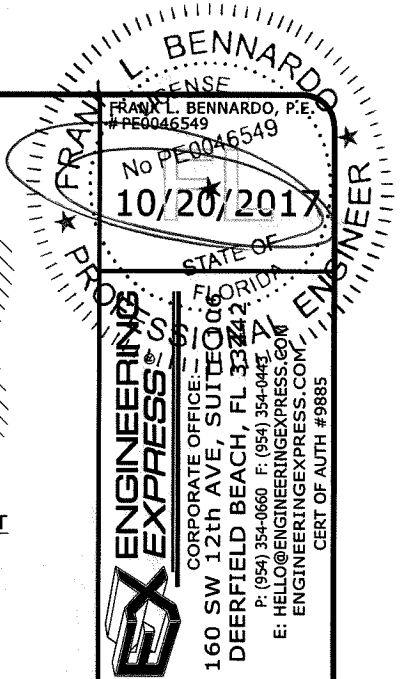
4
6 PASS THRU WINDOW DETAIL
N.T.S. VERT SECTION



5
6 STANDARD CORNER CLOSURE
N.T.S. HORIZ SECTION



6
6 ALTERNATE CORNER CLOSURE
N.T.S. HORIZ SECTION



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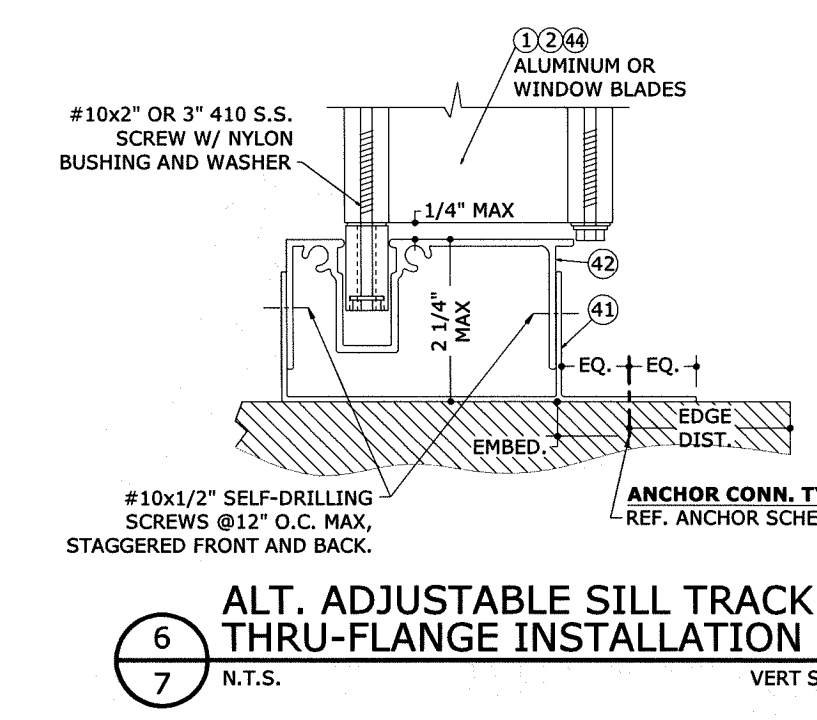
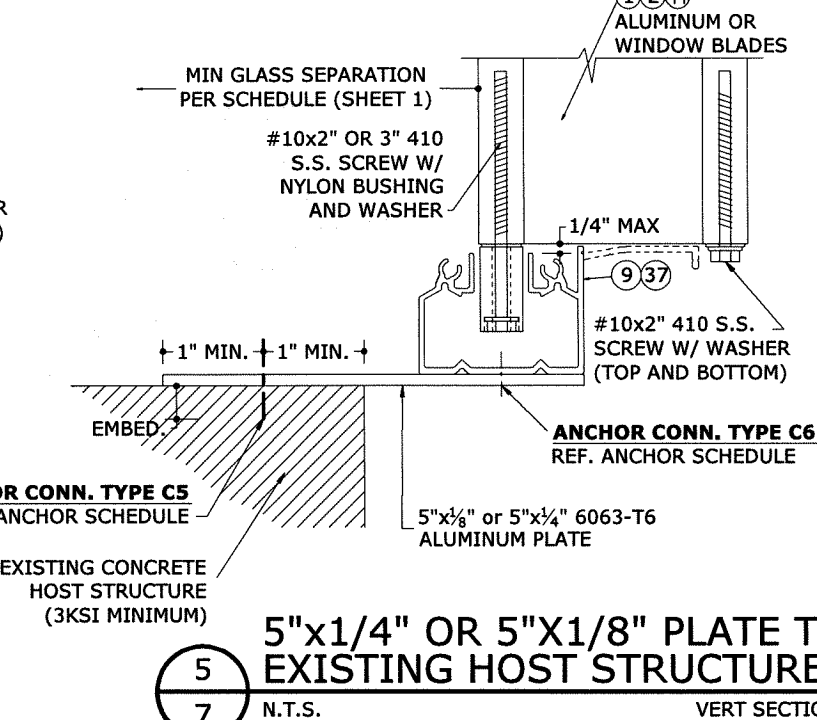
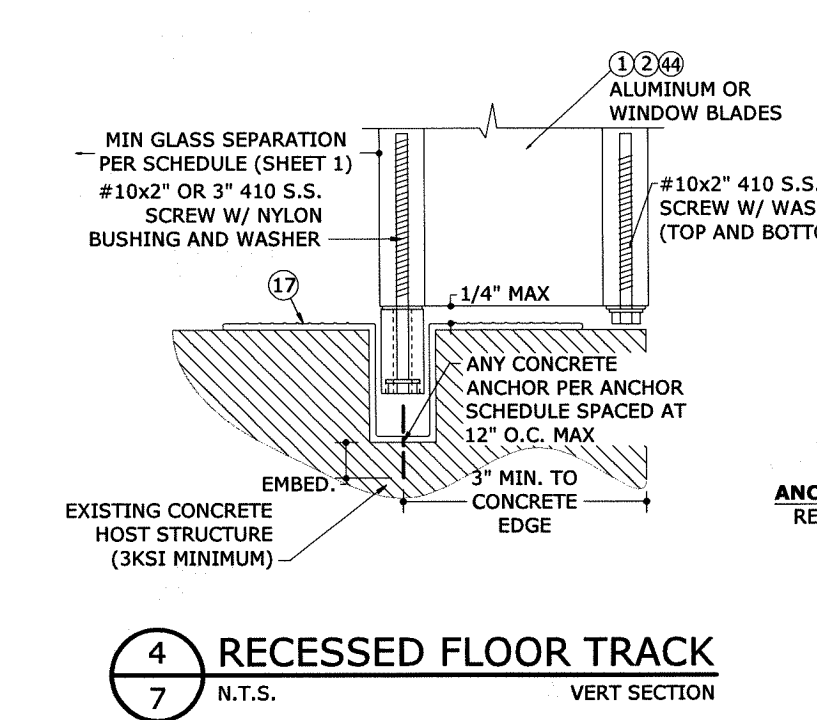
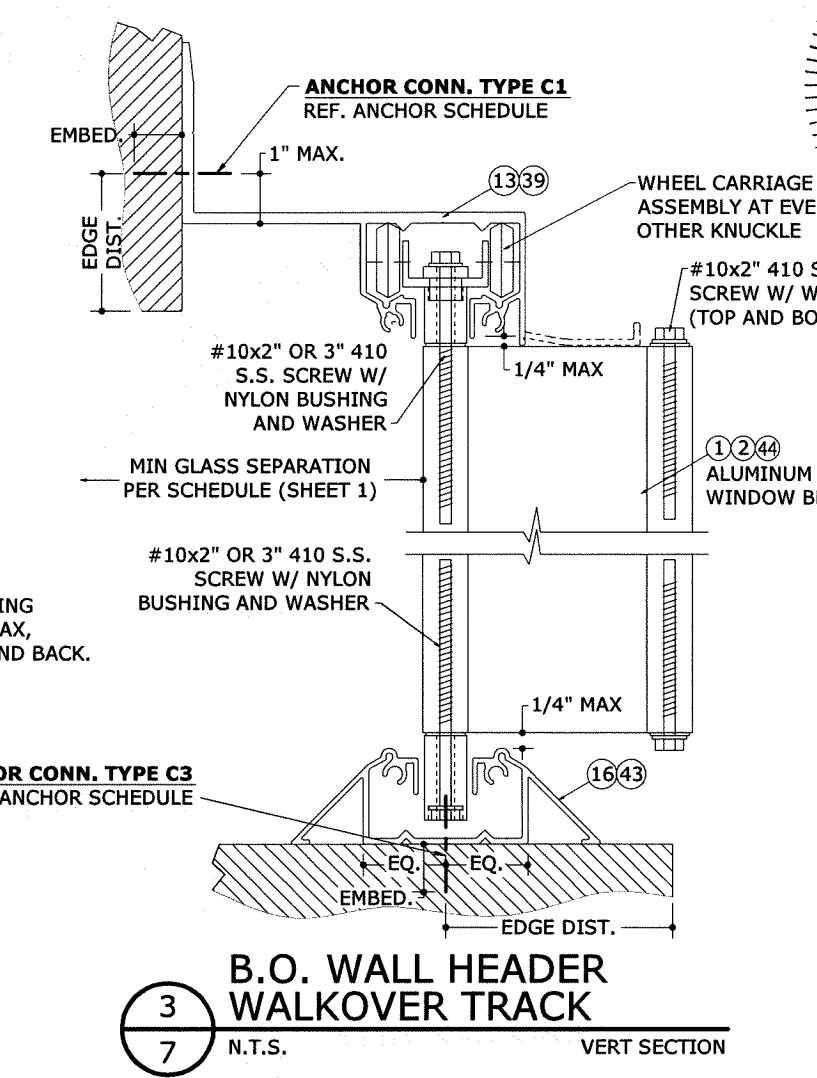
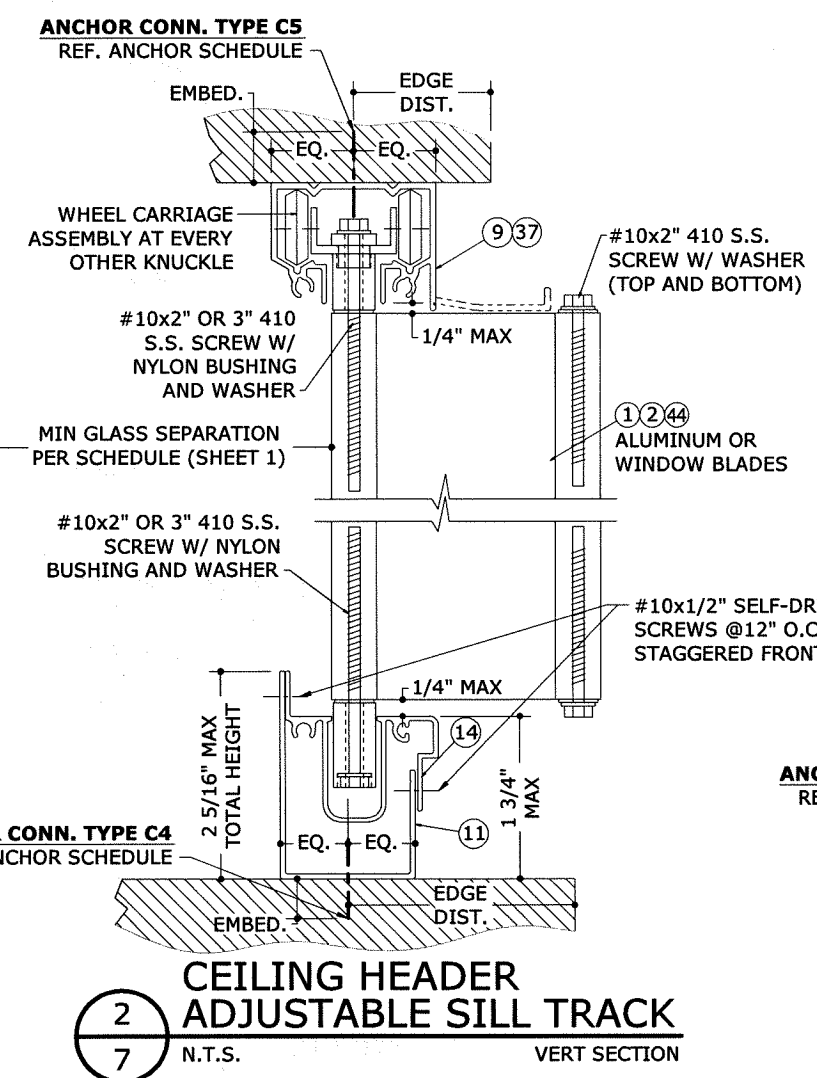
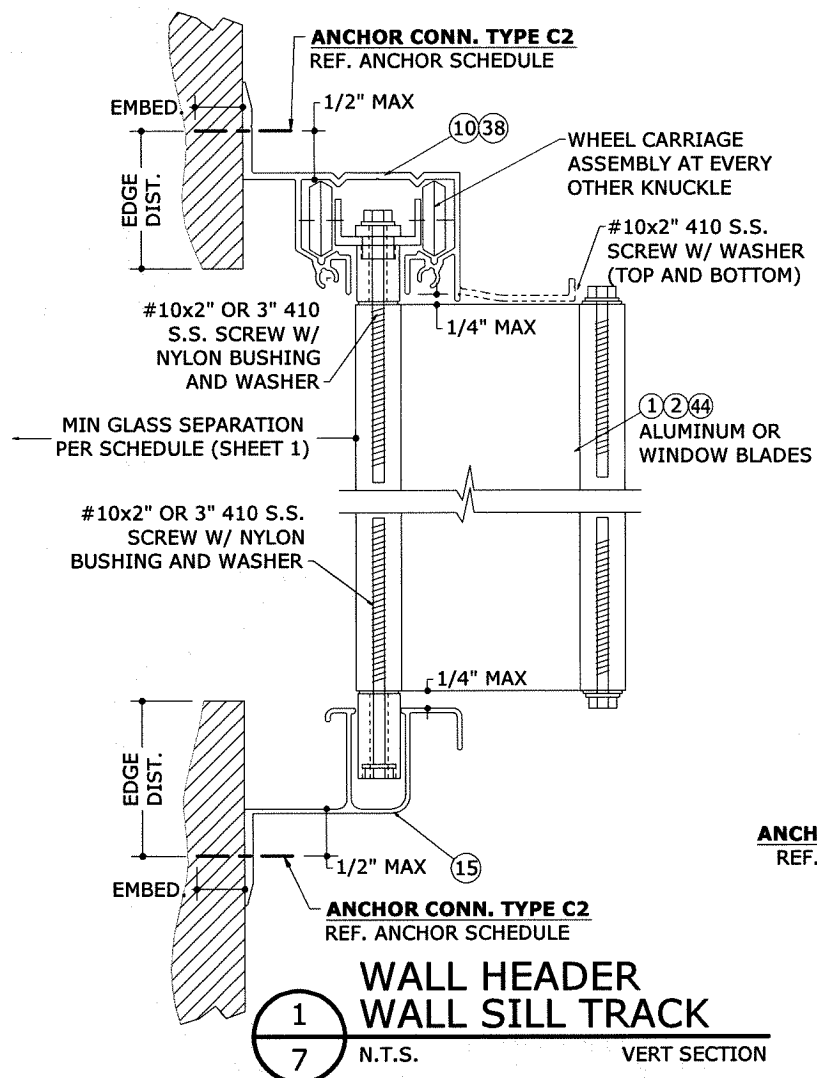
WITH ALUMINUM OR POLYCARBONATE BLADES
FLORIDA STATEWIDE PRODUCT APPROVAL FL12549.1

REMARKS	DATE	DRWN	CHKD
INITIAL SUBMITTAL	05/03/08	KL	FLB
2010 FBC (08-IT-01-04)	02/14/12	KL	FLB
FBC 5TH (2014)	02/06/15	CSL	TSB
UPDATE FOR FBC (2017)	10/04/17	JAC	FLB

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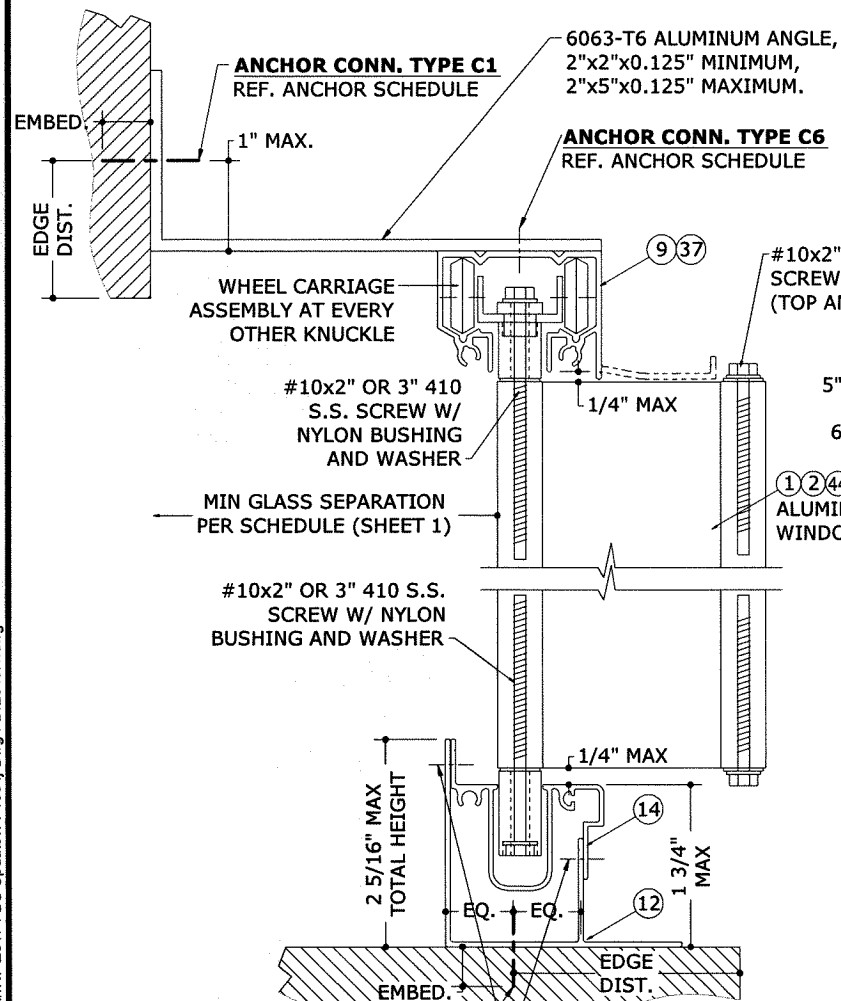
FRANK L. BENNARDI, P.E.
No. PE0046549
10/20/2017
STATE OF FLORIDA
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EXPRESS
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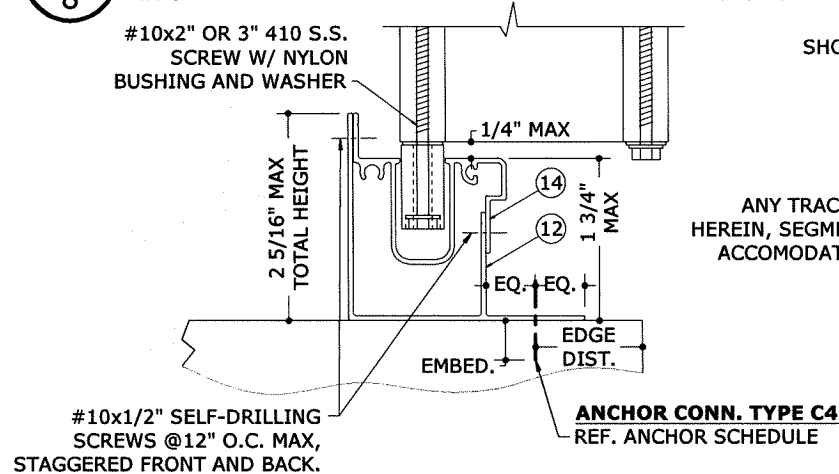
IMPACT TECHNOLOGY, INC.
7860 WEST 25 AVENUE
HIALEAH, FL 33016
PHONE: 407-402-4821
ACCORDION SHUTTER
WITH ALUMINUM OR POLYCARBONATE BLADES
FLORIDA STATEWIDE PRODUCT APPROVAL FL12549.1

REMARKS	DRWN	CHKD	DATE
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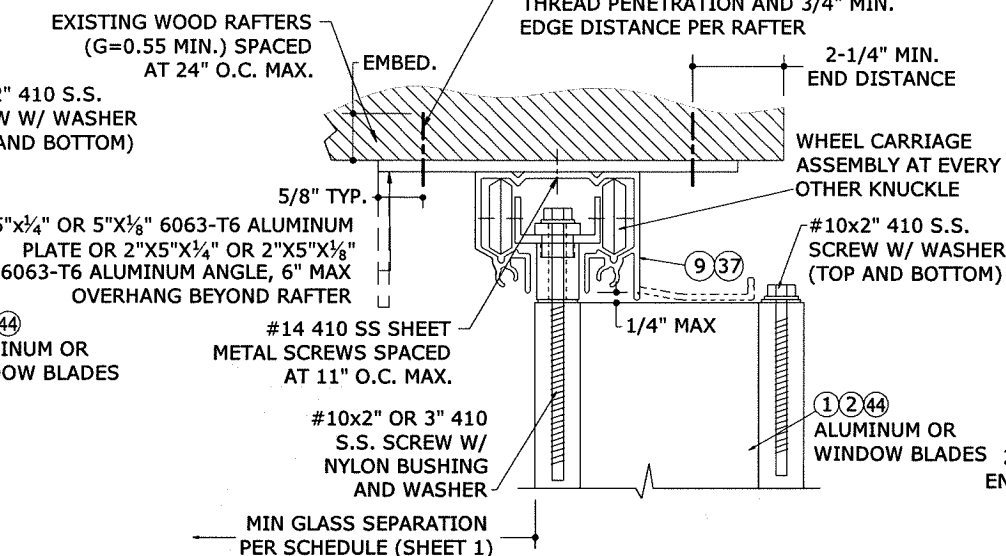
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1
2"x5" ANGLE W/ CEILING HEADER
8 ALT. ADJUSTABLE SILL TRACK
N.T.S. VERT SECTION



4
ALT. ADJUSTABLE SILL TRACK
8 THRU-FLANGE INSTALLATION
N.T.S. VERT SECTION



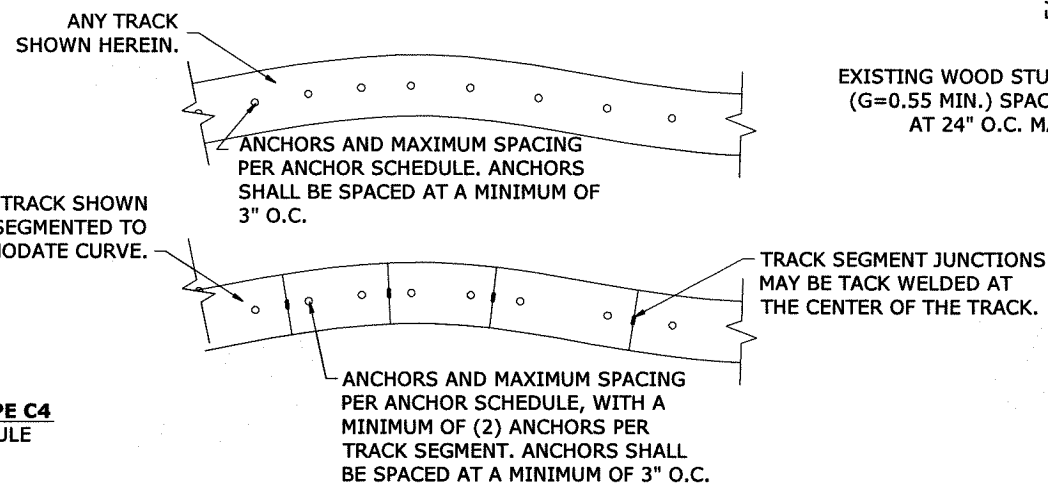
ALLOWABLE DESIGN PRESSURES
FOR DETAIL 2/8 WITH 1/4" ALUMINUM PLATE/ANGLE:

SPAN:	MAX DESIGN PRESSURE:
72"	+124.8 psf / -124.8 psf
90"	+99.8 psf / -99.8 psf
108"	+83.2 psf / -83.2 psf
126"	+61.2 psf / -71.3 psf
144"	+42.4 psf / -62.4 psf

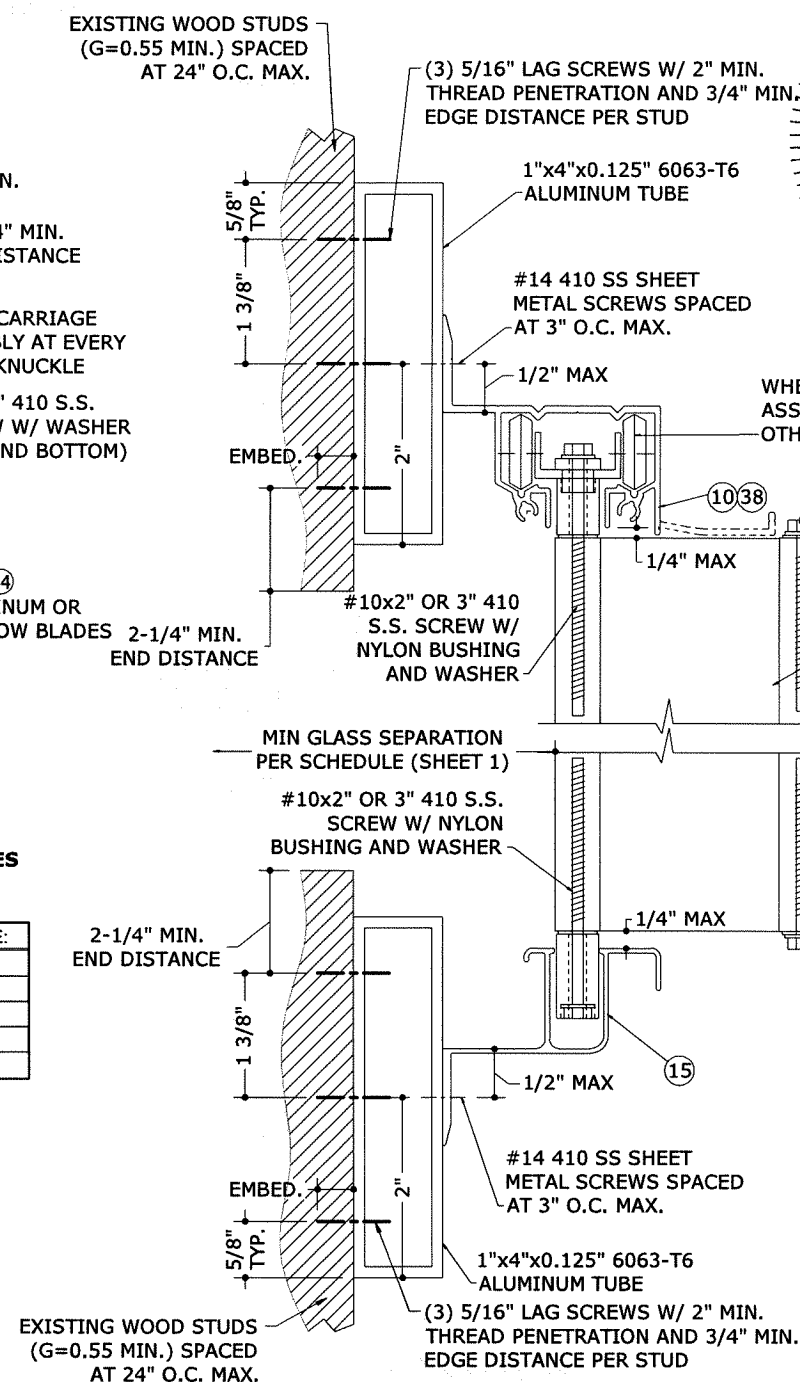
ALLOWABLE DESIGN PRESSURES
FOR DETAIL 2/8 WITH 1/8" ALUMINUM PLATE/ANGLE:

SPAN:	MAX DESIGN PRESSURE:
72"	+71.7 psf / -71.7 psf
90"	+57.3 psf / -57.3 psf
108"	+47.8 psf / -47.8 psf
126"	+40.9 psf / -40.9 psf
144"	+35.8 psf / -35.8 psf

2
5"x1/4" OR 5"x1/8" PLATE
8 TO EXISTING RAFTERS
N.T.S. VERT SECTION



5
OPTIONAL CURVED TRACK
8 W/ & W/O SEGMENTED SECTIONS
N.T.S. PLAN VIEW



NOTE: MAXIMUM ALLOWABLE SPANS AND
DESIGN PRESSURES FOR THIS MOUNTING
CONDITION PER TABLE BELOW.

ALLOWABLE DESIGN
PRESSURES FOR DETAIL 3/8:

SPAN:	MAX DESIGN PRESSURE:
72"	+111.5 psf / -111.5 psf
90"	+89.2 psf / -89.2 psf
108"	+74.3 psf / -74.3 psf
126"	+61.2 psf / -63.7 psf
144"	+42.4 psf / -55.7 psf

3
1"x4"x0.125" TUBE TO
8 EXISTING WALL STUDS
N.T.S. VERT SECTION



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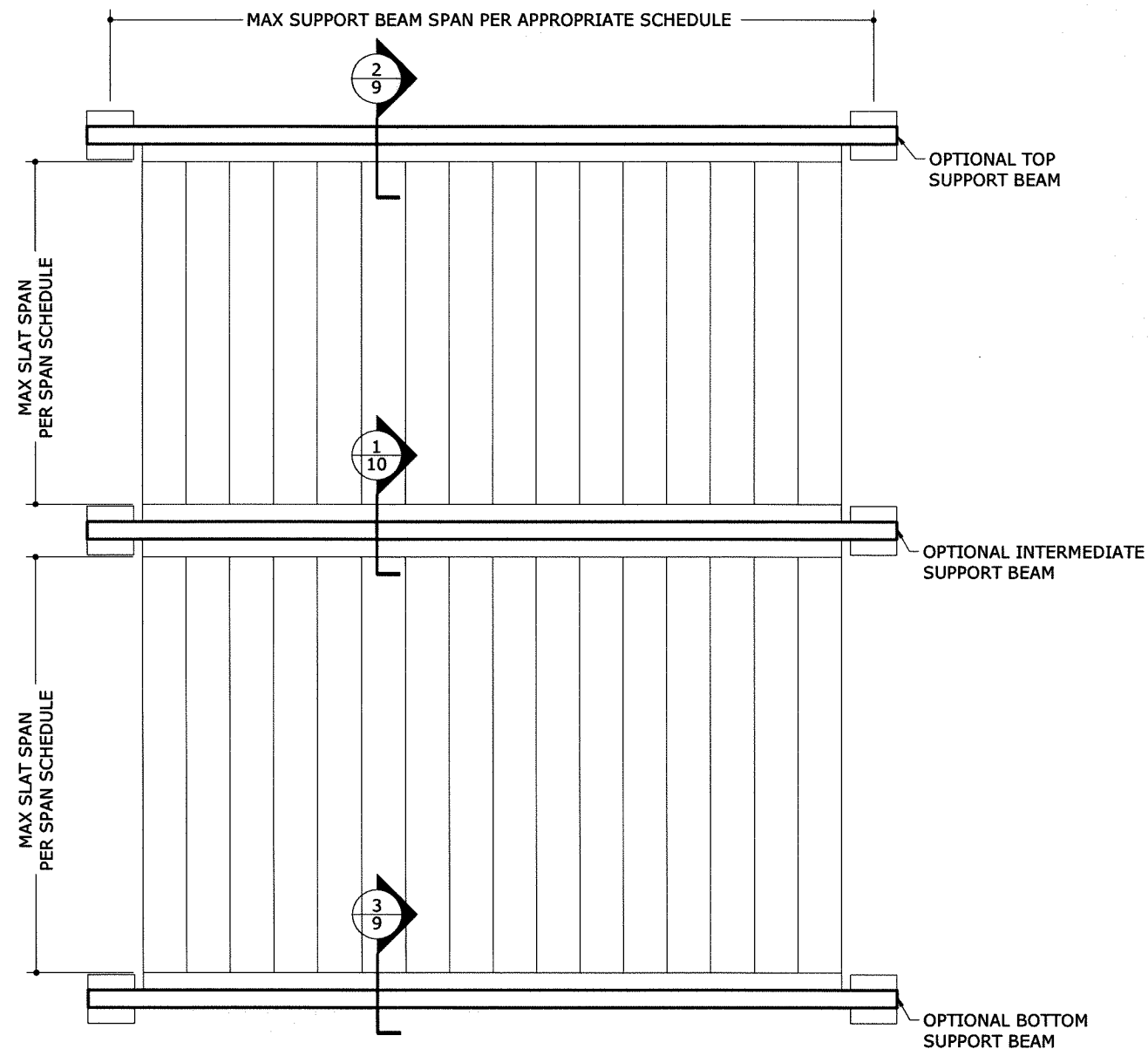


WITH ALUMINUM OR POLYCARBONATE BLADES
FLORIDA STATEWIDE PRODUCT APPROVAL FL12549.1

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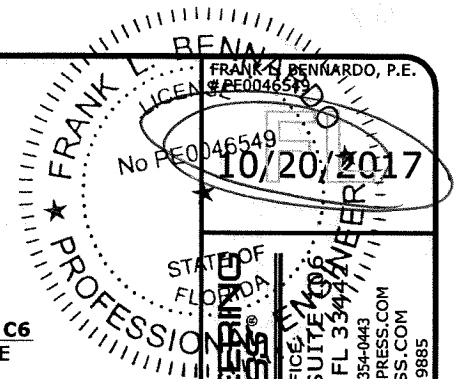
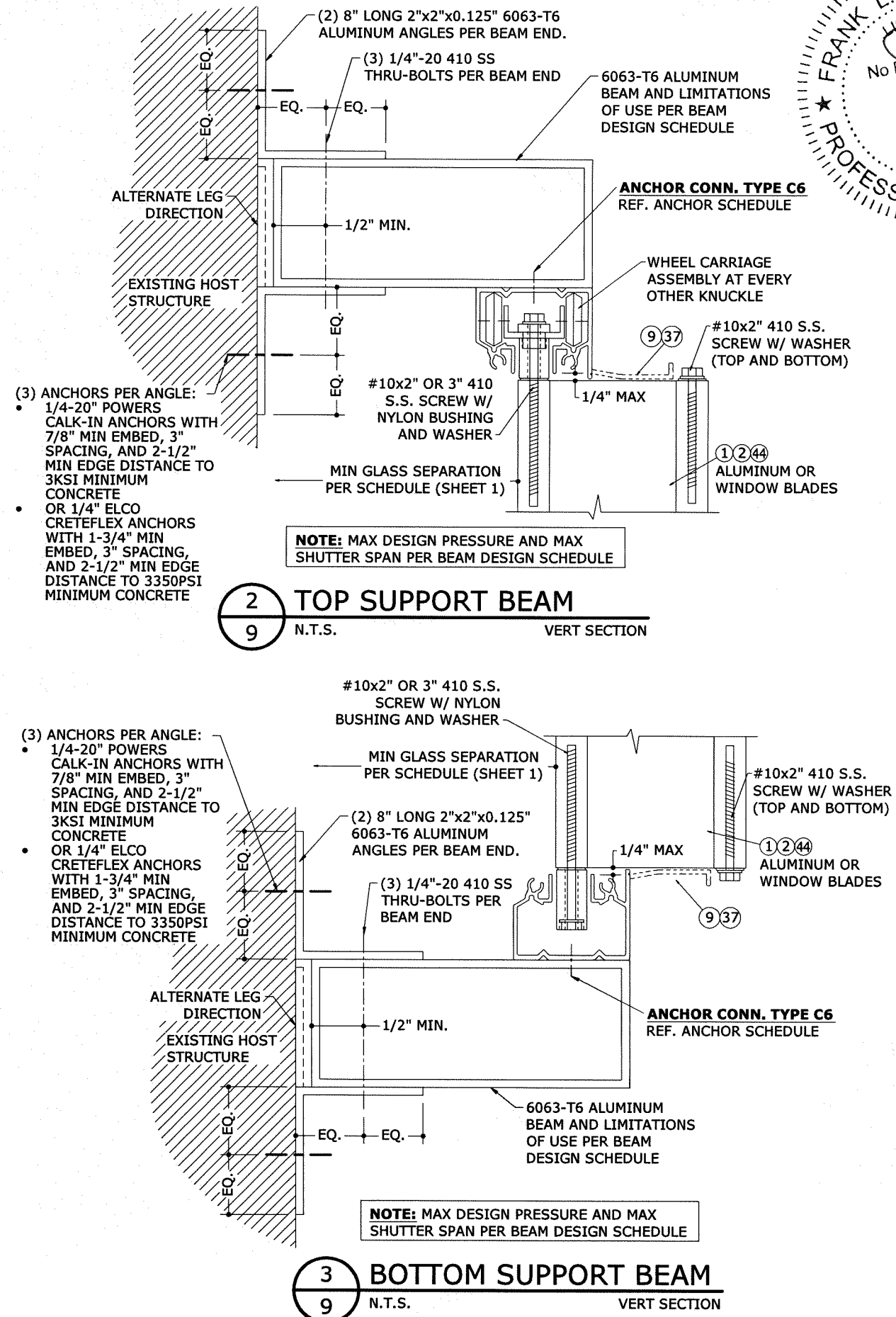
14-1964

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1
9 **ELEVATION WITH STORM BARS**
N.T.S. EXTERIOR ELEV

BEAM SIZE	SHUTTER SPAN	BEAM SPAN	ALLOWABLE DESIGN PRESSURE		
			TOP BEAM	BOTTOM BEAM	INTERMEDIATE BEAM
2"x5"x0.125"	5'-0"	9'-5"	74.0 PSF	74.0 PSF	37.0 PSF
	8'-0"	8'-1"	73.0 PSF	73.0 PSF	36.0 PSF
	10'-0"	7'-6"	73.0 PSF	73.0 PSF	36.0 PSF
2"x8"x0.072"/0.224"	5'-0"	14'-0"	68.4 PSF	81.0 PSF	34.2 PSF
	8'-0"	11'-6"	61.8 PSF	83.1 PSF	30.9 PSF
	10'-0"	10'-4"	61.1 PSF	82.3 PSF	30.5 PSF
2"x9"x0.072"/0.224"	5'-0"	15'-5"	59.4 PSF	80.5 PSF	29.7 PSF
	8'-0"	12'-5"	56.3 PSF	80.4 PSF	28.2 PSF
	10'-0"	11'-2"	55.5 PSF	79.6 PSF	27.7 PSF



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CERT OF AUTH #9885

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HIALEAH, FL 33016
PHONE: 407-402-4821

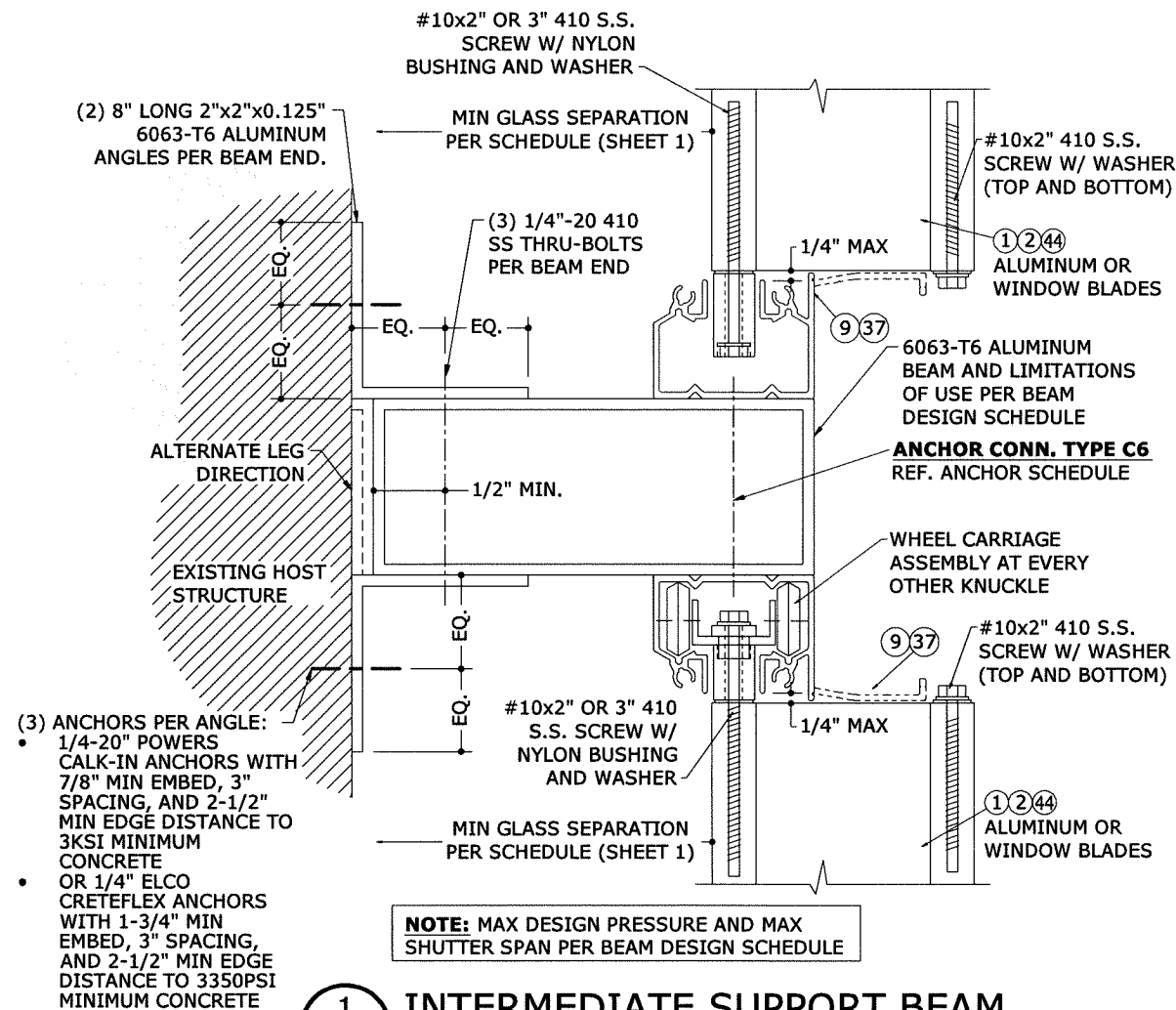


ACCORDION SHUTTER
WITH ALUMINUM OR POLYCARBONATE BLADES
FLORIDA STATEWIDE PRODUCT APPROVAL FL12549.1

REMARKS	DRWN	CHKD	DATE
INITIAL SUBMITTAL	KL	FLB	05/03/08
2010 FBC (09-IT-01-04)	KL	FLB	02/14/12
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UPDATE FOR FBC (2017)	JAC	FLB	10/04/17

14-1964

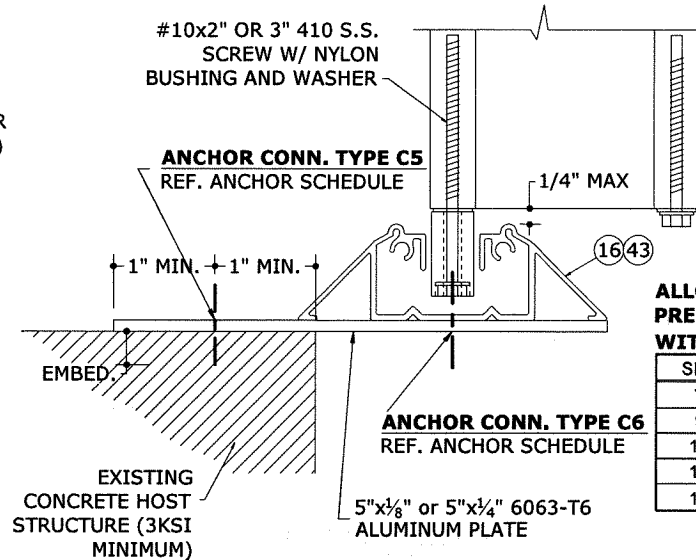
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NOTE: MAX DESIGN PRESSURE AND MAX SHUTTER SPAN PER BEAM DESIGN SCHEDULE

1
10 N.T.S. **INTERMEDIATE SUPPORT BEAM**
VERT SECTION

BEAM DESIGN SCHEDULE					
BEAM SIZE	SHUTTER SPAN	BEAM SPAN	ALLOWABLE DESIGN PRESSURE		
			TOP BEAM	BOTTOM BEAM	INTERMEDIATE BEAM
2"x5"x0.125"	5'-0"	9'-5"	74.0 PSF	74.0 PSF	37.0 PSF
	8'-0"	8'-1"	73.0 PSF	73.0 PSF	36.0 PSF
	10'-0"	7'-6"	73.0 PSF	73.0 PSF	36.0 PSF
2"x8"x0.072"/0.224"	5'-0"	14'-0"	68.4 PSF	81.0 PSF	34.2 PSF
	8'-0"	11'-6"	61.8 PSF	83.1 PSF	30.9 PSF
	10'-0"	10'-4"	61.1 PSF	82.3 PSF	30.5 PSF
2"x9"x0.072"/0.224"	5'-0"	15'-5"	59.4 PSF	80.5 PSF	29.7 PSF
	8'-0"	12'-5"	56.3 PSF	80.4 PSF	28.2 PSF
	10'-0"	11'-2"	55.5 PSF	79.6 PSF	27.7 PSF



2
10 N.T.S. **5"x1/4" OR 5"x1/8" PLATE TO EXISTING HOST STRUCTURE**
VERT SECTION

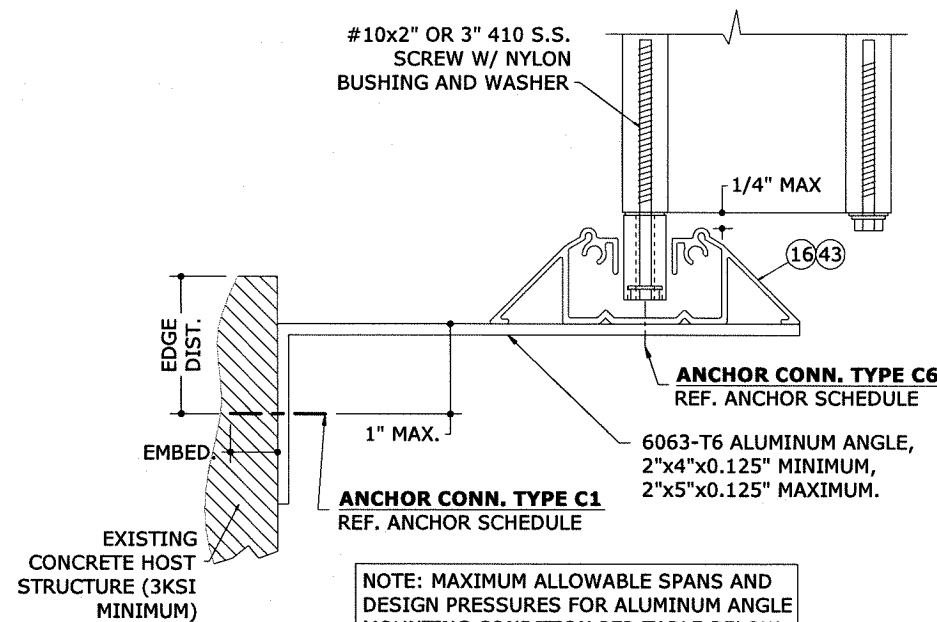
ALLOWABLE DESIGN PRESSURES FOR DETAIL 2/10 WITH 1/4" ALUMINUM PLATE:

SPAN:	MAX DESIGN PRESSURE:
72"	+140.7 psf / -140.7 psf
90"	+112.6 psf / -112.6 psf
108"	+93.8 psf / -93.8 psf
126"	+61.2 psf / -76.2 psf
144"	+42.4 psf / -62.4 psf

ALLOWABLE DESIGN PRESSURES FOR DETAIL 2/10 WITH 1/8" ALUMINUM PLATE:

SPAN:	MAX DESIGN PRESSURE:
72"	+65.7 psf / -65.7 psf
90"	+52.5 psf / -52.5 psf
108"	+43.8 psf / -43.8 psf
126"	+37.5 psf / -37.5 psf
144"	+32.8 psf / -32.8 psf

NOTE: MAXIMUM ALLOWABLE SPANS AND DESIGN PRESSURES FOR ALUMINUM PLATE, MOUNTING CONDITION PER TABLE BELOW.

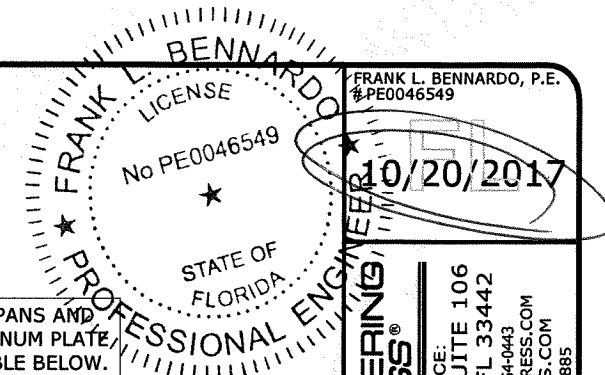


NOTE: MAXIMUM ALLOWABLE SPANS AND DESIGN PRESSURES FOR ALUMINUM ANGLE MOUNTING CONDITION PER TABLE BELOW.

ALLOWABLE DESIGN PRESSURES FOR DETAIL 3/10 WITH 1/8" ALUMINUM ANGLE:

SPAN:	MAX DESIGN PRESSURE:
72"	+77.1 psf / -77.1 psf
90"	+61.7 psf / -61.7 psf
108"	+53.4 psf / -53.4 psf
126"	+44.0 psf / -44.0 psf
144"	+38.5 psf / -38.5 psf

3
10 N.T.S. **2"x5" ANGLE W/ WALKOVER TRACK**
VERT SECTION



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160 SW 12th AVE, SUITE 106
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ACCORDION SHUTTER
WITH ALUMINUM OR POLYCARBONATE BLADES
FLORIDA STATEWIDE PRODUCT APPROVAL FL12549.1

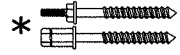
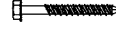
REMARKS	DRWN	CHKD	DATE
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FBC 5TH (2014)	CSL	TSB	02/08/15
UPDATE FOR FBC (2017)	JAC	FLB	10/04/17

14-1964

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PAGE DESCRIPTION:

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12

HOST STRUCT.	ANCHOR	LOAD (psf)	2.5" MIN EDGE DISTANCE																			
			Spans Up To 6'-0"					Spans Up To 9'-0"					Spans Up To 12'-0"					Spans Up To 13'-6"				
			CONN TYPE					CONN TYPE					CONN TYPE					CONN TYPE				
CONCRETE	1/4" ITW TAPCON WITH 1-3/4" EMBED (3192psi MIN CONC) 	35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	10.9"	12.0"	12.0"	12.0"	12.0"	8.0"	12.0"	12.0"	11.7"	12.0"	7.0"	12.0"
		40	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	9.4"	12.0"	12.0"	11.4"	12.0"	6.9"	11.9"	12.0"	9.5"	12.0"	6.1"	10.5"
		47	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	7.9"	12.0"	11.2"	8.9"	12.0"	5.8"	10.0"	9.5"	7.6"	12.0"	5.1"	8.9"
		60	12.0"	12.0"	12.0"	9.4"	12.0"	12.0"	9.5"	12.0"	6.1"	10.5"	7.9"	6.4"	10.8"	4.5"	7.8"	6.8"	5.5"	9.7"	4.0"	6.9"
		72	12.0"	12.0"	12.0"	7.7"	12.0"	9.2"	7.4"	12.0"	5.0"	8.7"	6.2"	5.1"	9.1"	3.7"	6.5"	5.8"	4.7"	8.6"	3.5"	6.1"
		120	7.9"	6.4"	10.8"	4.5"	7.8"	5.8"	4.7"	8.6"	3.5"	6.1"	5.8"	4.7"	8.6"	3.5"	6.1"	5.8"	4.7"	8.6"	3.5"	6.1"
	1/4" ELCO PANELMATE (FEMALE, MALE) W/ 1-3/4" MIN EMBED (3350psi MIN CONC) 	35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	10.3"	12.0"	12.0"	12.0"	12.0"	7.5"	12.0"	12.0"	11.6"	12.0"	6.6"	11.0"
		40	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	8.9"	12.0"	12.0"	11.3"	12.0"	6.5"	10.9"	11.9"	9.5"	12.0"	5.8"	9.6"
		47	12.0"	12.0"	12.0"	11.7"	12.0"	12.0"	12.0"	7.5"	12.0"	11.2"	8.9"	12.0"	5.5"	9.2"	9.4"	7.5"	10.9"	4.9"	8.1"	
		60	12.0"	12.0"	12.0"	8.9"	12.0"	11.9"	9.5"	12.0"	5.8"	9.6"	7.9"	6.4"	9.6"	4.3"	7.1"	6.7"	5.5"	8.6"	3.8"	6.3"
		72	12.0"	12.0"	12.0"	7.3"	12.0"	9.1"	7.3"	10.7"	4.7"	8.0"	6.2"	5.0"	8.1"	3.5"	5.9"	5.8"	4.7"	7.7"	3.3"	5.6"
		120	7.9"	6.4"	9.6"	4.3"	7.1"	5.8"	4.7"	7.7"	3.3"	5.6"	5.8"	4.7"	7.7"	3.3"	5.6"	5.8"	4.7"	7.7"	3.3"	5.6"
	1/4 ELCO CRETEFLEX W/ 1-3/4" MIN EMBED (3350psi MIN CONC) 	35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	10.3"	12.0"	12.0"	12.0"	12.0"	7.5"	12.0"	12.0"	11.6"	12.0"	6.6"	11.0"
		40	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	11.3"	12.0"	12.0"	12.0"	12.0"	8.3"	12.0"	12.0"	10.9"	12.0"	7.3"	12.0"
		47	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	9.5"	12.0"	12.0"	10.2"	12.0"	7.0"	12.0"	10.8"	8.7"	12.0"	6.1"	11.0"	
		60	12.0"	12.0"	12.0"	11.3"	12.0"	12.0"	10.9"	12.0"	7.3"	12.0"	9.1"	7.3"	12.0"	5.4"	9.7"	7.7"	6.3"	12.0"	4.7"	8.6"
		72	12.0"	12.0"	12.0"	9.3"	12.0"	10.5"	8.4"	12.0"	6.0"	10.8"	7.1"	5.8"	11.7"	4.4"	8.0"	6.6"	5.4"	11.1"	4.2"	7.6"
		120	9.1"	7.3"	12.0"	5.4"	9.7"	6.6"	5.4"	11.1"	4.2"	7.6"	6.6"	5.4"	11.1"	4.2"	7.6"	6.6"	5.4"	11.1"	4.2"	7.6"
	1/4-20 POWERS CALK-IN WITH 7/8" MIN EMBED (3000psi MIN CONC) 	35	12.0"	12.0"	12.0"	11.4"	12.0"	12.0"	12.0"	7.1"	12.0"	11.3"	8.7"	12.0"	5.2"	9.1"	9.2"	7.2"	11.1"	4.5"	8.1"	
		40	12.0"	12.0"	12.0"	9.7"	12.0"	12.0"	11.5"	12.0"	6.1"	10.7"	8.9"	7.0"	10.9"	4.5"	7.9"	7.4"	5.9"	9.8"	3.9"	7.0"
		47	12.0"	12.0"	12.0"	8.0"	12.0"	11.1"	8.6"	12.0"	5.1"	9.1"	6.9"	5.5"	9.4"	3.8"	6.7"	5.8"	4.7"	8.4"	3.3"	5.9"
		60	12.0"	11.5"	12.0"	6.1"	10.7"	7.4"	5.9"	9.8"	3.9"	7.0"	4.9"	4.0"	7.5"		5.2"	4.2"	3.4"	6.7"		4.6"
		72	10.7"	8.3"	12.0"	5.0"	8.9"	5.7"	4.5"	8.3"	3.2"	5.8"	3.8"	3.1"	6.3"		4.3"	3.6"		6.0"		4.1"
		120	4.9"	4.0"	7.5"		5.2"	3.6"		6.0"		4.1"	3.6"		6.0"		4.1"	3.6"		6.0"		4.1"
	1/4 ELCO PANELMATE INSERT WITH 1-5/8" MIN EMBED (3000psi MIN CONC) 	35	12.0"	12.0"	12.0"	10.7"	12.0"	12.0"	12.0"	6.7"	11.2"	11.5"	8.9"	10.7"	4.9"	8.2"	9.4"	7.3"	9.6"	4.3"	7.3"	
		40	12.0"	12.0"	12.0"	9.2"	12.0"	12.0"	11.7"	12.0"	5.8"	9.7"	9.1"	7.2"	9.5"	4.2"	7.2"	7.5"	6.0"	8.5"	3.7"	6.3"
		47	12.0"	12.0"	12.0"	7.6"	12.0"	11.3"	8.8"	10.6"	4.9"	8.2"	7.1"	5.6"	8.1"	3.6"	6.1"	5.9"	4.8"	7.3"	3.1"	5.4"
		60	12.0"	11.7"	12.0"	5.8"	9.7"	7.5"	6.0"	8.5"	3.7"	6.3"	5.0"	4.0"	6.5"		4.7"	4.3"	3.5"	5.8"		4.2"
		72	10.9"	8.5"	10.4"	4.7"	8.0"	5.8"	4.6"	7.1"	3.1"	5.3"	3.9"	3.2"	5.4"		3.9"	3.6"		5.1"		3.7"
		120	5.0"	4.0"	6.5"		4.7"	3.6"		5.1"		3.7"	3.6"		5.1"		3.7"	3.6"		5.1"		3.7"
		152	3.7"		5.2"		3.7"	3.6"		5.1"		3.7"	3.6"		5.1"		3.7"	3.6"		5.1"		3.7"

ANCHOR NOTES:

1.

ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
2.

TAPCONS SHALL BE 410 STAINLESS STEEL AND SHALL BE MANUFACTURED BY ITW.
3.

ENSURE MINIMUM 2.5" EDGE DISTANCE FOR ALL ANCHORS TO CONCRETE & TO HOLLOW BLOCK.
4.

ALL CONCRETE ANCHOR SHALL BE INSTALLED TO NON-CRACKED CONCRETE ONLY.
5.

WHERE ANCHORS FASTEN TO NARROW FACE OF STUD FRAMING, ANCHOR SHALL BE LOCATED IN CENTER OF NOMINAL 2x (MIN) WOOD STUD (i.e. 3/4" EDGE DISTANCE IS ACCEPTABLE FOR ANCHORS TO WOOD FRAMING).
6.

WOOD HOST STRUCTURE SHALL BE "SOUTHERN PINE" G=0.55 OR GREATER DENSITY.
7.

MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.
8.

ANCHOR SCHEDULE APPLIES TO ALL PRODUCTS CERTIFIED HEREIN, BUT ONLY PROVIDES MAXIMUM ALLOWABLE ANCHOR SPACING. MAXIMUM ALLOWABLE SPANS AND PRESSURES INDICATED IN SPAN SCHEDULE SHALL APPLY.
9.

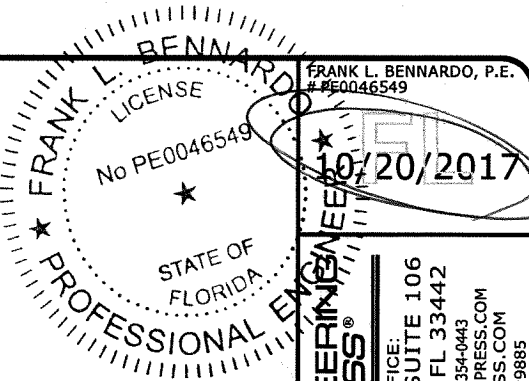
WHERE EXISTING STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT INTO PLYWOOD.
10.

WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.
11.

MACHINE SCREWS SHALL HAVE MINIMUM OF 1/2" ENGAGEMENT OF THREADS IN BASE ANCHOR AND MAY HAVE EITHER A PAN HEAD, TRUSS HEAD, OR WAFER HEAD ("SIDEWALK BOLT") U.N.O.
12.

 DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE FOR USE.
13.

* DESIGNATES ANCHORS WHICH ARE REMOVABLE.



FRANK L. BENNARDO, P.E.
#PE0046549

10/20/2017

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REMARKS	DRWN	CHKD	DATE
INITIAL SUBMITTAL	KL	FLB	05/03/09
2010 FBC (09-IT-01-04)	KL	FLB	02/14/12
FBC 5TH (2014)	CSL	TSL	02/06/15
UPDATE FOR FBC (2017)	JAC	FLB	10/04/17

14-1964

SCALE:

PAGE DESCRIPTION:

HOST STRUCT.	ANCHOR	LOAD (psf)	2.5" MIN EDGE DISTANCE																			
			Spans Up To 6'-0"					Spans Up To 9'-0"					Spans Up To 12'-0"					Spans Up To 13'-6"				
			CONN TYPE					CONN TYPE					CONN TYPE					CONN TYPE				
HOLLOW BLOCK	1/4" ITW TAPCON WITH 1-1/4" EMBED 	35	12.0"	12.0"	11.2"	4.9"	9.1"	7.9"	5.7"	8.1"	3.0"	5.8"	4.3"	3.3"	6.3"		4.3"	3.5"		5.7"		3.8"
		40	12.0"	12.0"	10.1"	4.2"	7.9"	5.8"	4.4"	7.2"		5.0"	3.4"		5.6"		3.7"			5.1"		3.3"
		47	10.7"	7.4"	8.8"	3.4"	6.6"	4.2"	3.3"	6.3"		4.2"			4.9"		3.1"			4.4"		
		60	5.8"	4.4"	7.2"		5.0"			5.1"		3.3"			3.9"					3.5"		
		72	4.1"	3.2"	6.2"		4.2"			4.3"					3.3"					3.1"		
		120			3.9"					3.1"					3.1"					3.1"		
	1/4" ELCO PANELMATE (FEMALE, MALE) W/ 1-1/4" MIN EMBED 	35	12.0"	12.0"	12.0"	7.1"	11.7"	12.0"	9.7"	9.6"	4.4"	7.6"	7.3"	5.6"	7.4"	3.2"	5.6"	5.9"	4.7"	6.6"		4.9"
		40	12.0"	12.0"	12.0"	6.1"	10.1"	9.9"	7.4"	8.5"	3.8"	6.6"	5.8"	4.5"	6.6"		4.9"	4.8"	3.8"	5.9"		4.3"
		47	12.0"	12.0"	10.6"	5.0"	8.5"	7.2"	5.6"	7.4"	3.2"	5.5"	4.5"	3.6"	5.6"		4.1"	3.8"	3.0"	5.1"		3.6"
		60	9.9"	7.4"	8.5"	3.8"	6.6"	4.8"	3.8"	5.9"		4.3"	3.2"		4.5"		3.2"			4.0"		
		72	6.9"	5.4"	7.2"	3.1"	5.4"	3.7"		5.0"		3.6"			3.8"					3.6"		
		120	3.2"		4.5"		3.2"			3.6"					3.6"					3.6"		
	1/4 ELCO CRETEFLEX W/ 1-1/4" MIN EMBED 	35	12.0"	12.0"	12.0"	8.3"	12.0"	12.0"	10.9"	11.9"	5.2"	9.2"	8.1"	6.3"	9.2"	3.8"	6.8"	6.6"	5.2"	8.3"	3.3"	6.0"
		40	12.0"	12.0"	12.0"	7.1"	12.0"	11.0"	8.3"	10.6"	4.5"	8.0"	6.5"	5.1"	8.2"	3.3"	5.9"	5.4"	4.2"	7.3"		5.2"
		47	12.0"	12.0"	12.0"	5.9"	10.3"	8.0"	6.2"	9.2"	3.8"	6.7"	5.0"	4.0"	7.1"		5.0"	4.2"	3.4"	6.3"		4.4"
		60	11.0"	8.3"	10.6"	4.5"	8.0"	5.4"	4.2"	7.3"		5.2"	3.5"		5.6"		3.9"	3.0"		5.0"		3.4"
		72	7.7"	6.0"	9.0"	3.7"	6.6"	4.1"	3.3"	6.2"		4.3"			4.7"		3.2"			4.5"		3.0"
		120	3.5"		5.6"		3.9"			4.5"		3.0"			4.5"		3.0"			4.5"		3.0"
1/4-20 ALL POINTS SOLID SET WITH 7/8" MIN EMBED 	35	12.0"	12.0"	12.0"	9.6"	12.0"	12.0"	12.0"	12.0"	6.0"	10.1"	10.1"	7.8"	9.8"	4.4"	7.5"	8.2"	6.4"	8.8"	3.9"	6.6"	
	40	12.0"	12.0"	12.0"	8.2"	12.0"	12.0"	10.2"	11.3"	5.2"	8.8"	8.0"	6.3"	8.7"	3.8"	6.5"	6.6"	5.2"	7.8"	3.3"	5.8"	
	47	12.0"	12.0"	12.0"	6.8"	11.4"	9.9"	7.7"	9.8"	4.3"	7.4"	6.2"	4.9"	7.5"	3.2"	5.5"	5.2"	4.2"	6.7"		4.9"	
	60	12.0"	10.2"	11.3"	5.2"	8.8"	6.6"	5.2"	7.8"	3.3"	5.8"	4.4"	3.5"	5.9"		4.3"	3.7"	3.0"	5.3"		3.8"	
	72	9.6"	7.4"	9.6"	4.2"	7.3"	5.0"	4.1"	6.6"		4.8"	3.4"		5.0"		3.6"	3.2"		4.7"		3.4"	
	120	4.4"	3.5"	5.9"		4.3"	3.2"		4.7"		3.4"	3.2"		4.7"		3.4"	3.2"		4.7"		3.4"	
1/4 ELCO PANELMATE INSERT WITH 1-1/4" MIN EMBED 	35	12.0"	12.0"	12.0"	8.6"	12.0"	12.0"	12.0"	11.1"	5.4"	8.9"	9.2"	7.1"	8.6"	3.9"	6.6"	7.5"	5.9"	7.7"	3.4"	5.8"	
	40	12.0"	12.0"	12.0"	7.3"	11.9"	12.0"	9.4"	9.9"	4.6"	7.7"	7.3"	5.7"	7.6"	3.4"	5.7"	6.0"	4.8"	6.8"		5.1"	
	47	12.0"	12.0"	12.0"	6.1"	10.0"	9.1"	7.0"	8.5"	3.9"	6.5"	5.7"	4.5"	6.5"		4.9"	4.8"	3.8"	5.8"		4.3"	
	60	12.0"	9.4"	9.9"	4.6"	7.7"	6.0"	4.8"	6.8"		5.1"	4.0"	3.2"	5.2"		3.8"	3.4"		4.6"		3.3"	
	72	8.7"	6.8"	8.3"	3.8"	6.4"	4.6"	3.7"	5.7"		4.2"	3.1"		4.3"		3.1"			4.1"			
	120	4.0"	3.2"	5.2"		3.8"			4.1"					4.1"					4.1"			